

Safety Data Sheet

According to Regulation (EC) No 1907/2006

SURE[™] Washroom Cleaner & Descaler

Revision: 2018-01-25

Version: 03.0

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

1.1 Product identifier

Trade name: SURE™ Washroom Cleaner & Descaler

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

Identified uses: For professional use only. AISE-P301 - General purpose cleaner. Manual process AISE-P302 - General purpose cleaner. Spray and wipe manual process AISE-P307 - Descaling agent. Manual process AISE-P308 - Descaling agent. Spray and rinse 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

Diversey Ltd Weston Favell Centre, Northampton NN3 8PD, United Kingdom Tel: 01604 405311, Fax: 01604 406809 Regulatory Email: customerservice.uk@diversey.com

1.4 Emergency telephone number

For medical or environmental emergency only: call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Eye Irrit. 2 (H319)

2.2 Label elements



Signal word: Warning.

Hazard statements:

H319 - Causes serious eye irritation.

Precautionary statements:

P102 - Keep out of reach of children. Do not mix with other products.

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 |
|---------------------|-----------|------------|------------------|---|-------|-------------------|
| I-(+)-lactic acid | 201-196-2 | 79-33-4 | 01-2119474164-39 | Skin Irrit. 2 (H315) Eye Dam. 1 (H318) | | 3-10 |
| citric acid | 201-069-1 | 77-92-9 | 01-2119457026-42 | Eye Irrit. 2A (H319) | | 3-10 |
| alkyl polyglucoside | 500-220-1 | 68515-73-1 | 01-2119488530-36 | Eye Dam. 1 (H318) | | 1-3 |

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: | 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. If irritation occurs and persists, get medical attention. |
| Ingestion: | Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Get medical attention or advice if you feel unwell. |
| Self-protection of first aider: | Consider personal protective equipment as indicated in subsection 8.2. |
| 4.2 Most important symptoms and effe | ects, both acute and delayed |
| Inhalation: | No known effects or symptoms in normal use. |
| Skin contact: | 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.

No known effects or symptoms in normal use.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Eye contact:

Ingestion:

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

Causes severe irritation.

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

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 Diversey. Wash hands before breaks and at the end of workday. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. 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:

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 |
|---------------------|-------------------------------|----------------------------------|------------------------------|---------------------------------|
| I-(+)-lactic acid | - | 35.4 | - | - |
| citric acid | - | - | - | - |
| alkyl polyglucoside | - | - | - | 35.7 |

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) |
|---------------------|-------------------------------|---|------------------------------|--|
| I-(+)-lactic acid | - | - | - | - |
| citric acid | No data available | - | No data available | - |
| alkyl polyglucoside | No data available | - | No data available | 595000 |

DNEL dermal exposure - Consumer

| Ingredient(s) | Short term - Local | Short term - Systemic | Long term - Local | Long term - Systemic |
|---------------------|--------------------|-----------------------|-------------------|----------------------|
| | effects | effects (mg/kg bw) | effects | effects (mg/kg bw) |
| I-(+)-lactic acid | No data available | - | No data available | - |
| citric acid | No data available | - | No data available | - |
| alkyl polyglucoside | No data available | - | No data available | 357000 |

DNEL inhalatory exposure - Worker (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|---------------------|-------------------------------|----------------------------------|------------------------------|---------------------------------|
| I-(+)-lactic acid | - | - | - | - |
| citric acid | - | - | - | - |
| alkyl polyglucoside | - | - | - | 420 |

DNEL inhalatory exposure - Consumer (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|---------------------|-------------------------------|----------------------------------|------------------------------|---------------------------------|
| I-(+)-lactic acid | - | - | - | - |
| citric acid | - | - | - | - |
| alkyl polyglucoside | - | - | - | 124 |

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) |
|---------------------|--------------------------------|---------------------------------|---------------------|----------------------------------|
| I-(+)-lactic acid | 1.3 | - | - | 10 |
| citric acid | 0.44 | 0.044 | - | > 1000 |
| alkyl polyglucoside | 0.176 | 0.0176 | 0.27 | 560 |

Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m³) |
|---------------------|---------------------------------|-----------------------------|--------------|-------------|
| I-(+)-lactic acid | - | - | - | - |
| citric acid | 34.6 | 3.46 | 33.1 | - |
| alkyl polyglucoside | 1.516 | 0.152 | 0.654 | - |

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 (EN 166). |
| Hand protection: Body protection: Respiratory protection: | Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary. No special requirements under normal use conditions. No special requirements under normal use conditions. |
| Environmental exposure controls: | No special requirements under normal use conditions. |
| Recommended safety measures for hand | lling the <u>diluted</u> product: |
| Recommended maximum concentration | on (%): 3 |
| Appropriate engineering controls: | No special requirements under normal use conditions. Provide a good standard of general ventilation. |
| Appropriate organisational controls: | No special requirements under normal use conditions. |
| Personal protective equipment Eye / face protection: | No special requirements under normal use conditions. |

Eye / race 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

Physical State: Liquid
Colour: Translucent, Pale, from Colourless to Yellow
Odour: Product specific
Odour threshold: Not applicable
pH: ≈ 2 (neat)
Melting point/freezing point (°C): Not determined
Initial boiling point and boiling range (°C): Not determined

ISO 4316 Not relevant to classification of this product See substance data

Substance data, boiling point

| Ingredient(s) | Value (°C) | Method | Atmospheric pressure (hPa) |
|---------------------|-------------------|------------------|-------------------------------|
| I-(+)-lactic acid | 110-130 | Method not given | 1013 |
| citric acid | No data available | | |
| alkyl polyglucoside | > 100 | Method not given | 1013 |

Method / remark

Method / remark

Not relevant to classification of this product

Upper/lower flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

Flammability (solid, gas): Not applicable to liquids

Vapour pressure: Not determined

Flash point (°C): Not applicable. Sustained combustion: Not applicable. (UN Manual of Tests and Criteria, section 32, L.2) Evaporation rate: Not determined

Method / remark

See substance data

Substance data, vapour pressure

| Ingredient(s) | Value (Pa) | Method | Temperature (°C) |
|---------------------|-------------------|------------------|---------------------|
| I-(+)-lactic acid | 8.13 | Method not given | 25 |
| citric acid | No data available | | |
| alkyl polyglucoside | No data available | | |

Vapour density: Not determined Relative density: ≈ 1.07 (20 °C) Solubility in / Miscibility with Water: Fully miscible

Method / remark

Not relevant to classification of this product OECD 109 (EU A.3)

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|---------------------|----------------|------------------|---------------------|
| I-(+)-lactic acid | Soluble | | |
| citric acid | 1630 | Method not given | |
| alkyl polyglucoside | Soluble | Method not given | 20 |

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

Autoignition temperature: Not determined Decomposition temperature: Not applicable.

Viscosity: ≈ 50 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

Reacts with alkali. Keep away from products containing chlorine-based bleaching agents or sulphites.

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): >5000

| 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

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|---------------------|----------|------------------|---------|------------------------|----------------------|
| I-(+)-lactic acid | LD 50 | 3543 | Rat | Method not given | |
| citric acid | LD 50 | 3000 | Rat | Method not given | |
| alkyl polyglucoside | LD 50 | > 2000 | Rat | OECD 423 (EU B.1 tris) | |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|---------------------|----------|------------------|---------|-------------------|----------------------|
| I-(+)-lactic acid | LD 50 | > 2000 | Rabbit | EPA OPP 81-2 | |
| citric acid | LD 50 | > 2000 | Rat | Method not given | |
| alkyl polyglucoside | LD 50 | > 2000 | Rabbit | OECD 402 (EU B.3) | |

Method / remark

Not relevant to classification of this product

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|---------------------|----------|----------------------|---------|-------------------|----------------------|
| I-(+)-lactic acid | LC 50 | (mist) > 7.94 | Rat | OECD 403 (EU B.2) | 4 |
| citric acid | | No data available | | | |
| alkyl polyglucoside | | No data available | | | |

Irritation and corrosivity Skin irritation and corrosivity

| okin initiation and concernty | | | | |
|-------------------------------|--------------|---------|-------------------|---------------|
| Ingredient(s) | Result | Species | Method | Exposure time |
| I-(+)-lactic acid | Irritant | | OECD 404 (EU B.4) | |
| citric acid | Not irritant | Rabbit | OECD 404 (EU B.4) | |
| alkyl polyglucoside | Not irritant | Rabbit | OECD 404 (EU B.4) | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|---------------------|---------------|---------|-------------------|---------------|
| I-(+)-lactic acid | Severe damage | | Method not given | |
| citric acid | Irritant | Rabbit | OECD 405 (EU B.5) | |
| alkyl polyglucoside | Severe damage | Rabbit | OECD 405 (EU B.5) | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|---------------------|-------------------|---------|--------|---------------|
| I-(+)-lactic acid | No data available | | | |
| citric acid | No data available | | | |
| alkyl polyglucoside | No data available | | | |

Sensitisation

| Sensitisation by skin contact | | | | |
|-------------------------------|-----------------|------------|-------------------------------------|-------------------|
| Ingredient(s) | Result | Species | Method | Exposure time (h) |
| I-(+)-lactic acid | Not sensitising | | Method not given | |
| citric acid | Not sensitising | Guinea pig | Method not given | |
| alkyl polyglucoside | Not sensitising | Guinea pig | OECD 406 (EU B.6) / Buehler test | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|---------------------|-------------------|---------|--------|---------------|
| I-(+)-lactic acid | No data available | | | |
| citric acid | No data available | | | |
| alkyl polyglucoside | 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) |
|---------------------|---|----------------------|--|---------------------|
| I-(+)-lactic acid | No data available | | No evidence for genotoxicity | |
| citric acid | No data available | | No evidence of genotoxicity, negative test results | Method not given |
| alkyl polyglucoside | No evidence for mutagenicity, negative test results | Read across | No data available | |

Carcinogenicity

| Ingredient(s) | Effect |
|---------------------|--|
| I-(+)-lactic acid | No data available |
| citric acid | No evidence for carcinogenicity, negative test results |
| alkyl polyglucoside | No evidence for carcinogenicity, weight-of-evidence |

Toxicity for reproduction

| Ingredient(s) | Endpoint | Specific effect | Value (mg/kg bw/d) | Species | Method | Exposure time | Remarks and other effects reported |
|---------------------|----------|-----------------|-----------------------|---------|---------------------------------|------------------|---|
| I-(+)-lactic acid | | | No data available | | | | No known significant effects or critical hazards |
| citric acid | | | No data available | | | | No evidence for reproductive toxicity |
| alkyl polyglucoside | | | No data available | | OECD 416, (EU B.35), oral | | No evidence for reproductive toxicity |

Repeated dose toxicity

| Sub-acute of sub-chronic oral toxicity | | | | | | |
|--|----------|--------------|---------|--------|-------------|-----------------------------|
| Ingredient(s) | Endpoint | Value | Species | Method | Exposure | Specific effects and organs |
| , | | (mg/kg bw/d) | • | | time (days) | affected |
| I-(+)-lactic acid | | No data | | | | |

| | | available | | | | |
|---------------------|-------|-----------|-----|--------------|----|--|
| citric acid | | No data | | | | |
| | | available | | | | |
| alkyl polyglucoside | NOAEL | 100 | Rat | OECD 408 (EU | 90 | |
| | | | | B.26) | | |

Sub-chronic dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg bw/d) | Species | Method | Exposure time (days) | Specific effects and organs affected |
|---------------------|----------|-----------------------|---------|--------|-------------------------|---|
| I-(+)-lactic acid | | No data | | | | |
| | | available | | | | |
| citric acid | | No data | | | | |
| | | available | | | | |
| alkyl polyglucoside | | No data | | | | |
| | | available | | | | |

Sub-chronic inhalation toxicity

| Ingredient(s) | Endpoint | Value | Species | Method | | Specific effects and organs |
|---------------------|----------|--------------|---------|--------|-------------|-----------------------------|
| | | (mg/kg bw/d) | | | time (days) | affected |
| I-(+)-lactic acid | | No data | | | | |
| | | available | | | | |
| citric acid | | No data | | | | |
| | | available | | | | |
| alkyl polyglucoside | | No data | | | | |
| | | available | | | | |

Chronic toxicity

| Ingredient(s) | Exposure | Endpoint | Value | Species | Method | Exposure | Specific effects and | Remark |
|---------------------|----------|----------|--------------|---------|--------|----------|----------------------|--------|
| | route | | (mg/kg bw/d) | | | time | organs affected | |
| I-(+)-lactic acid | | | No data | | | | | |
| | | | available | | | | | |
| citric acid | | | No data | | | | | |
| | | | available | | | | | |
| alkyl polyglucoside | | | No data | | | | | |
| | | | available | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|---------------------|-------------------|
| I-(+)-lactic acid | Not applicable |
| citric acid | No data available |
| alkyl polyglucoside | No data available |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|---------------------|-------------------|
| I-(+)-lactic acid | Not applicable |
| citric acid | No data available |
| alkyl polyglucoside | 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

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|---------------------|----------|-----------------|------------------------|------------------|----------------------|
| I-(+)-lactic acid | LC 50 | 130 | Oncorhynchus mykiss | Method not given | 96 |
| citric acid | LC 50 | 440 | Leuciscus idus | Method not given | 48 |
| alkyl polyglucoside | LC 50 | 100.81 | Brachydanio rerio | ISO 7346 | 96 |

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------|----------|-----------------|---------|------------------|----------------------|
| I-(+)-lactic acid | EC 50 | 130 | Daphnia | Method not given | 48 |

| | | | magna Straus | | |
|---------------------|-------|-------|--------------|-------------------|----|
| citric acid | EC 50 | 1535 | Daphnia | Method not given | 24 |
| | | | magna Straus | | |
| alkyl polyglucoside | EC 50 | > 100 | Daphnia | OECD 202 (EU C.2) | 48 |
| | | | magna Straus | | |

| Aquatic short-term toxicity - algae Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--|----------|-----------------|--|------------------|----------------------|
| I-(+)-lactic acid | EC 50 | 2800 | Pseudokirchner iella subcapitata | Method not given | 72 |
| citric acid | LC 50 | 425 | Scenedesmus quadricauda | Method not given | 168 |
| alkyl polyglucoside | EC 50 | 27.22 | Desmodesmus subspicatus | Method not given | 72 |

| Aquatic short-term toxicity - marine species | |
|--|--|
|--|--|

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (days) |
|---------------------|----------|----------------------|-------------------------|------------------|-------------------------|
| I-(+)-lactic acid | | No data available | | | - |
| citric acid | | No data available | | | - |
| alkyl polyglucoside | EC 50 | 12.43 | Skeletonema costatum | Method not given | 3 |

| Impact on sewage plants - toxicity to bacteria | | | | | |
|--|----------|-----------------|--------------------|------------------|------------------|
| Ingredient(s) | Endpoint | Value (mg/l) | Inoculum | Method | Exposure time |
| I-(+)-lactic acid | EC 50 | > 100 | Activated sludge | Method not given | 3 hour(s) |
| citric acid | EC 50 | > 10000 | Pseudomonas putida | Method not given | 16 hour(s) |
| alkyl polyglucoside | EC 10 | > 560 | Pseudomonas putida | Method not given | 6 hour(s) |

Aquatic long-term toxicity Aquatic long-term toxicity - fish

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|---------------------|----------|----------------------|----------------------|---------------------|------------------|------------------|
| I-(+)-lactic acid | | No data available | | | | |
| citric acid | | No data available | | | | |
| alkyl polyglucoside | NOEC | 1 | Brachydanio rerio | Method not given | 28 day(s) | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure | Effects observed |
|---------------------|----------|-----------|---------|----------|-----------|------------------|
| | | (mg/l) | | | time | |
| I-(+)-lactic acid | | No data | | | | |
| | | available | | | | |
| citric acid | | No data | | | | |
| | | available | | | | |
| alkyl polyglucoside | NOEC | 1 | Daphnia | OECD 202 | 21 day(s) | |
| | | | magna | | | |

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 |
|---------------------|----------|---------------------------------|---------|--------|-------------------------|------------------|
| I-(+)-lactic acid | | No data available | | | - | |
| citric acid | | No data available | | | - | |
| alkyl polyglucoside | | No data available | | | - | |

Terrestrial toxicity

Terrestrial toxicity - soil invertebrates, including earthworms, if available: Ingredient(s) Endpoint Value Species Method Exposure Effects observed (mg/kg dw soil) time (days) I-(+)-lactic acid No data available citric acid No data available alkyl polyglucoside No data available

Terrestrial toxicity - plants, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|---------------------|----------|-----------------------------|---------|--------|-------------------------|------------------|
| I-(+)-lactic acid | | No data available | | | - | |
| citric acid | | No data available | | | - | |
| alkyl polyglucoside | | No data available | | | - | |

Terrestrial toxicity - birds, if available:

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure time (days) | Effects observed |
|---------------------|----------|-----------|---------|--------|-------------------------|------------------|
| I-(+)-lactic acid | | No data | | | - | |
| | | available | | | | |
| citric acid | | No data | | | - | |
| | | available | | | | |
| alkyl polyglucoside | | No data | | | - | |
| | | available | | | | |

Terrestrial toxicity - beneficial insects, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|---------------------|----------|-----------------------------|---------|--------|-------------------------|------------------|
| I-(+)-lactic acid | | No data available | | | - | |
| citric acid | | No data available | | | - | |
| alkyl polyglucoside | | No data available | | | - | |

Terrestrial toxicity - soil bacteria, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|---------------------|----------|-----------------------------|---------|--------|-------------------------|------------------|
| I-(+)-lactic acid | | No data available | | | - | |
| citric acid | | No data available | | | - | |
| alkyl polyglucoside | | No data available | | | - | |

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

| Ingredient(s) | Inoculum | Analytical method | DT 50 | Method | Evaluation |
|---------------------|----------|----------------------|-------------------|------------------|-----------------------|
| I-(+)-lactic acid | | | | Method not given | Readily biodegradable |
| citric acid | | | 97 % in 28 day(s) | | Readily biodegradable |
| alkyl polyglucoside | | | 59% | OECD 301E | Readily biodegradable |

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potential

| Ingredient(s) | Value | Method | Evaluation | Remark |
|---------------------|-------|------------------|-----------------------------|--------|
| I-(+)-lactic acid | -0.62 | Method not given | Not relevant, does not | |
| | | | bioaccumulate | |
| citric acid | -1.72 | | No bioaccumulation expected | |
| alkyl polyglucoside | 0.07 | Method not given | No bioaccumulation expected | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|---------------------|-------------------|---------|--------|------------|--------|
| I-(+)-lactic acid | No data available | | | | |
| citric acid | No data available | | | | |
| alkyl polyglucoside | 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 |
|---------------------|--------------------------------------|---|--------|-----------------------|--|
| I-(+)-lactic acid | No data available | | | | Low potential for adsorption to soil |
| citric acid | No data available | | | | Potential for mobility in soil, soluble in water |
| alkyl polyglucoside | 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:

European Waste Catalogue:

The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation. 20 01 29* - detergents containing dangerous substances.

Empty packaging **Recommendation:** Suitable cleaning agents:

Dispose of observing national or local regulations. Water, if necessary with cleaning agent.

SECTION 14: Transport information

Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

- 14.1 UN number: Non-dangerous goods
- 14.2 UN proper shipping name: Non-dangerous goods
- 14.3 Transport hazard class(es): Non-dangerous goods 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 and the IBC Code: Non-dangerous goods

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations:

- Regulation (EC) No. 1907/2006 REACH
- Regulation (EC) No 1272/2008 CLP

Regulation (EC) No. 648/2004 - Detergents regulation

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

Ingredients according to EC Detergents Regulation 648/2004

non-ionic surfactants

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

15.2 Chemical safety assessment

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

SECTION 16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

SDS code: MS1002595

Reason for revision:

This data sheet contains changes from the previous version in section(s):, 8, 15, 16

Classification procedure

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

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for toxicological information and section 12 for ecological information.

- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.

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