



SURE™ Toilet Cleaner

Revision: 2018-01-25

Version: 02.1

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

1.1 Product identifier

Trade name: SURE™ Toilet Cleaner

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

Identified uses:

For professional use only.

AISE-P305 - Sanitary cleaner. 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

Not classified as hazardous

2.2 Label elements

Hazard statements:

EUH210 - Safety data sheet available on request.

Precautionary statements:

P102 - Keep out of reach of children.

Do not mix with other products.

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 | Notes | Weight percent |
|-------------------|-----------|------------|------------------|---|-------|----------------|
| l-(+)-lactic acid | 201-196-2 | 79-33-4 | 01-2119474164-39 | Skin Irrit. 2 (H315) Eye Dam. 1 (H318) | | 3-10 |

* Polymer.

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.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

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.

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| | |
|--|---|
| Eye contact: | Rinse cautiously with water for several minutes. If irritation occurs and persists, get medical attention. |
| Ingestion: | Rinse mouth. 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 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: | No known effects or symptoms in normal use. |
| 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**7.1 Precautions for safe handling****Measures to prevent fire and explosions:**

No special precautions required.

Measures required to protect the environment:

For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Diversey.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local and national regulations. Keep only in original 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 | - | - |

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 | - | - | - | - |

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) |
|-------------------|----------------------------|--|---------------------------|---|
| I-(+)-lactic acid | 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 |
|-------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| I-(+)-lactic acid | - | - | - | - |

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 | - | - | - | - |

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 |

Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m ³) |
|-------------------|------------------------------|--------------------------|--------------|--------------------------|
| I-(+)-lactic acid | - | - | - | - |

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet. If available, please refer to the product information sheet for application and handling instructions. Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

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

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: 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:** Yellow**Odour:** Product specific**Odour threshold:** Not applicable**pH:** ≈ 3 (neat)**Melting point/freezing point (°C):** Not determined

Not relevant to classification of this product

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

Substance data, boiling point

| Ingredient(s) | Value | Method | Atmospheric pressure |
|---------------|-------|--------|----------------------|
|---------------|-------|--------|----------------------|

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| | (°C) | | (hPa) |
|-------------------|---------|------------------|-------|
| I-(+)-lactic acid | 110-130 | Method not given | 1013 |

Method / remark

Flash point (°C): Not applicable.

Sustained combustion: Not applicable.

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

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) |
|-------------------|------------|------------------|------------------|
| I-(+)-lactic acid | 8.13 | Method not given | 25 |

Method / remark

Vapour density: Not determined

Relative density: ≈ 1.02 (20 °C)

Solubility in / Miscibility with Water: Fully miscible

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|-------------------|-------------|--------|------------------|
| I-(+)-lactic acid | Soluble | | |

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

Method / remark

Autoignition temperature: Not determined

Decomposition temperature: Not applicable.

Viscosity: Not determined

Explosive properties: Not explosive.

Oxidising properties: Not oxidising.

9.2 Other information

Surface tension (N/m): Not determined

Not relevant to classification of this product

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.

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

Eye irritation and corrosivity**Result:** Not corrosive or irritant **Species:** Rabbit**Method:** OECD 405 (EU B.5)

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

Acute toxicity

Acute oral toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|-------------------|------------------|---------------|---------|------------------|-------------------|
| l-(+)-lactic acid | LD ₅₀ | 3543 | Rat | Method not given | |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|-------------------|------------------|---------------|---------|--------------|-------------------|
| l-(+)-lactic acid | LD ₅₀ | > 2000 | Rabbit | EPA OPP 81-2 | |

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------|------------------|---------------|---------|-------------------|-------------------|
| l-(+)-lactic acid | LC ₅₀ | (mist) > 7.94 | Rat | OECD 403 (EU B.2) | 4 |

Irritation and corrosivity

Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------|----------|---------|-------------------|---------------|
| l-(+)-lactic acid | Irritant | | OECD 404 (EU B.4) | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------|---------------|---------|------------------|---------------|
| l-(+)-lactic acid | Severe damage | | Method not given | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------|-------------------|---------|--------|---------------|
| l-(+)-lactic acid | No data available | | | |

Sensitisation

Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|-------------------|-----------------|---------|------------------|-------------------|
| l-(+)-lactic acid | Not sensitising | | Method not given | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------|-------------------|---------|--------|---------------|
| l-(+)-lactic acid | 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) |
|-------------------|-------------------|-------------------|------------------------------|------------------|
| l-(+)-lactic acid | No data available | | No evidence for genotoxicity | |

Carcinogenicity

| Ingredient(s) | Effect |
|-------------------|-------------------|
| l-(+)-lactic acid | 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 |
|-------------------|----------|-----------------|--------------------|---------|--------|---------------|--|
| l-(+)-lactic acid | | | No data available | | | | No known significant effects or critical hazards |

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 |
|-------------------|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| l-(+)-lactic acid | | 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 |
|-------------------|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| l-(+)-lactic acid | | No data available | | | | |

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Sub-chronic inhalation 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 | | | | |

Chronic toxicity

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

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|-------------------|-------------------|
| I-(+)-lactic acid | Not applicable |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|-------------------|-------------------|
| I-(+)-lactic acid | Not applicable |

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) |
|-------------------|------------------|--------------|----------------------------|------------------|-------------------|
| I-(+)-lactic acid | LC ₅₀ | 130 | <i>Oncorhynchus mykiss</i> | Method not given | 96 |

Aquatic short-term toxicity - crustacea

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

Aquatic short-term toxicity - algae

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------|------------------|--------------|--|------------------|-------------------|
| I-(+)-lactic acid | EC ₅₀ | 2800 | <i>Pseudokirchneriella subcapitata</i> | 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 | | | - |

Impact on sewage plants - toxicity to bacteria

| Ingredient(s) | Endpoint | Value (mg/l) | Inoculum | Method | Exposure time |
|-------------------|------------------|--------------|-------------------------|------------------|---------------|
| I-(+)-lactic acid | EC ₅₀ | > 100 | <i>Activated sludge</i> | Method not given | 3 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 | | | | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|---------------|----------|--------------|---------|--------|---------------|------------------|
| | | | | | | |

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| | | | | | | |
|-------------------|--|-------------------|--|--|--|--|
| I-(+)-lactic acid | | No data available | | | | |
|-------------------|--|-------------------|--|--|--|--|

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

| Ingredient(s) | Endpoint | Value (mg/kg dw sediment) | Species | Method | Exposure time (days) | Effects observed |
|-------------------|----------|---------------------------|---------|--------|----------------------|------------------|
| I-(+)-lactic acid | | 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 |
|-------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| I-(+)-lactic acid | | 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 | | | - | |

Terrestrial toxicity - birds, if available:

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure time (days) | Effects observed |
|-------------------|----------|-------------------|---------|--------|----------------------|------------------|
| I-(+)-lactic acid | | 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 | | | - | |

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 | | | - | |

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 |
|-------------------|----------|-------------------|------------------|------------------|-----------------------|
| I-(+)-lactic acid | | | | Method not given | Readily biodegradable |

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log K_{ow})

| Ingredient(s) | Value | Method | Evaluation | Remark |
|-------------------|-------|------------------|--------------------------------------|--------|
| I-(+)-lactic acid | -0.62 | Method not given | Not relevant, does not bioaccumulate | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|-------------------|-------------------|---------|--------|------------|--------|
| I-(+)-lactic acid | No data available | | | | |

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

| Ingredient(s) | Adsorption coefficient Log K _{oc} | Desorption coefficient Log K _{oc} (des) | Method | Soil/sediment type | Evaluation |
|-------------------|--|--|--------|--------------------|------------------------------|
| I-(+)-lactic acid | No data available | | | | Low potential for adsorption |

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- 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