

Domestos Professional Toilet Limescale Remover

Revision: 2017-06-04

Version: 02.1

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

1.1 Product identifier

Trade name: Domestos Professional Toilet Limescale Remover
Domestos 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-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

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: customerservice.uk@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

Skin Irrit. 2 (H315)
Eye Dam. 1 (H318)
Met. Corr. 1 (H290)

2.2 Label elements



Signal word: Danger.

Contains alkylbenzenesulphonic acid (Dodecylbenzene Sulfonic Acid).

Hazard statements:

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H290 - May be corrosive to metals.

Precautionary statements:

P280 - Wear eye or face protection.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTRE, doctor or physician.

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2.3 Other hazards

No other hazards known

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

| Ingredient(s) | EC number | CAS number | REACH number | Classification | Notes | Weight percent |
|----------------------------|-----------|------------|--|---|-------|----------------|
| sulphamic acid | 226-218-8 | 5329-14-6 | 01-2119488633-28, 01-2119846728-23, 01-2119982121-44 | Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Aquatic Chronic 3 (H412) | | 3-10 |
| alkylbenzenesulphonic acid | 287-494-3 | 85536-14-7 | 01-21111-9490234-40 | Skin Corr. 1C (H314) Acute Tox. 4 (H302) Aquatic Chronic 3 (H412) | | 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. Take off immediately all contaminated clothing and wash it before re-use. 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. Immediately call a POISON CENTRE, doctor or physician.

Ingestion:

Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. 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:

Causes irritation.

Eye contact:

Causes severe or permanent damage.

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**

Wear eye/face protection.

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.

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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 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. Wash contaminated clothing before reuse. Use personal protective equipment as required. Avoid contact with eyes. 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 |
|----------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| sulphamic acid | - | - | - | 1.06 |
| alkylbenzenesulphonic acid | - | - | - | 0.85 |

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) |
|----------------------------|----------------------------|--|---------------------------|---|
| sulphamic acid | No data available | - | No data available | - |
| alkylbenzenesulphonic acid | - | - | - | 170 |

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) |
|----------------------------|----------------------------|--|---------------------------|---|
| sulphamic acid | No data available | - | No data available | - |
| alkylbenzenesulphonic acid | - | - | - | 85 |

DNEL inhalatory exposure - Worker (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|----------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| sulphamic acid | - | - | - | 7.5 |
| alkylbenzenesulphonic acid | - | - | 12 | 12 |

DNEL inhalatory exposure - Consumer (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|----------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| sulphamic acid | - | - | - | 1.85 |
| alkylbenzenesulphonic acid | - | - | 3 | 3 |

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) |
|----------------------------|-----------------------------|------------------------------|---------------------|-------------------------------|
| sulphamic acid | 0.3 | 0.03 | 0.3 | 200 |
| alkylbenzenesulphonic acid | 0.278 | 0.0287 | 0.0167 | 3.43 |

Environmental exposure - PNEC, continued

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| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m ³) |
|----------------------------|------------------------------|--------------------------|--------------|--------------------------|
| sulphamic acid | 0.3 | 0.03 | 3 | - |
| alkylbenzenesulphonic acid | 0.287 | 0.287 | 35 | - |

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: Provide a good standard of general ventilation. 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 or goggles (EN 166).

Hand protection: Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.

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

Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: \geq 30 min
Material thickness: \geq 0.4 mm

In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

Body protection: No special requirements under normal use conditions.

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

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

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, Blue | |
| Odour: Slightly perfumed | |
| Odour threshold: Not applicable | |
| pH: < 2 (neat) | ISO 4316 |
| Melting point/freezing point (°C): Not determined | Not relevant to classification of this product |
| Initial boiling point and boiling range (°C): Not determined | See substance data |

Substance data, boiling point

| Ingredient(s) | Value (°C) | Method | Atmospheric pressure (hPa) |
|----------------------------|------------|------------------|----------------------------|
| sulphamic acid | 205 | Method not given | 1013 |
| alkylbenzenesulphonic acid | 190 | Method not given | |

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 applicable to liquids

Upper/lower flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

| | Method / remark |
|--|--------------------|
| Vapour pressure: Not determined | See substance data |

Substance data, vapour pressure

| Ingredient(s) | Value (Pa) | Method | Temperature (°C) |
|----------------------------|------------|------------------|------------------|
| sulphamic acid | 0 | Method not given | 20 |
| alkylbenzenesulphonic acid | 0.15 | | 20 |

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Vapour density: Not determined
Relative density: ≈ 1.06 (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) |
|----------------------------|-------------|------------------|------------------|
| sulphamic acid | 213 | Method not given | 20 |
| alkylbenzenesulphonic acid | > 10 | Method not given | 20 |

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

Method / remark

Autoignition temperature: Not determined
Decomposition temperature: Not applicable.
Viscosity: ≈ 95 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: Corrosive

Not relevant to classification of this product
 Weight of evidence

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

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

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

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) |
|----------------------------|------------------|---------------|---------|-------------------|-------------------|
| sulphamic acid | LD ₅₀ | 2065 | Rat | Method not given | |
| alkylbenzenesulphonic acid | LD ₅₀ | > 1470 | Rat | OECD 401 (EU B.1) | |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|----------------------------|------------------|-------------------|---------|-------------------|-------------------|
| sulphamic acid | | No data available | | | |
| alkylbenzenesulphonic acid | LD ₅₀ | > 2000 | Rat | OECD 402 (EU B.3) | |

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure |
|---------------|----------|-------|---------|--------|----------|
|---------------|----------|-------|---------|--------|----------|

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| | (mg/l) | time (h) |
|----------------------------|-------------------|----------|
| sulphamic acid | No data available | |
| alkylbenzenesulphonic acid | No data available | |

Irritation and corrosivity

Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|----------------------------|-----------|---------|-------------------|---------------|
| sulphamic acid | Irritant | Rabbit | OECD 404 (EU B.4) | |
| alkylbenzenesulphonic acid | Corrosive | Rabbit | OECD 404 (EU B.4) | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|----------------------------|---------------|---------|-------------------|---------------|
| sulphamic acid | Severe damage | Rabbit | OECD 405 (EU B.5) | |
| alkylbenzenesulphonic acid | Severe damage | Rabbit | OECD 405 (EU B.5) | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|----------------------------|-------------------|---------|--------|---------------|
| sulphamic acid | No data available | | | |
| alkylbenzenesulphonic acid | No data available | | | |

Sensitisation

Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|----------------------------|-------------------|------------|--------------------------|-------------------|
| sulphamic acid | No data available | | | |
| alkylbenzenesulphonic acid | Not sensitising | Guinea pig | OECD 406 (EU B.6) / GPMT | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|----------------------------|-------------------|---------|--------|---------------|
| sulphamic acid | No data available | | | |
| alkylbenzenesulphonic 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) |
|----------------------------|---|--------------------------------|---|--------------------|
| sulphamic acid | No evidence for mutagenicity, negative test results | OECD 471 (EU B.12/13) | No data available | |
| alkylbenzenesulphonic acid | No evidence for mutagenicity, negative test results | OECD 471 (EU B.12/13) OECD 473 | No evidence for mutagenicity, negative test results | OECD 474 (EU B.12) |

Carcinogenicity

| Ingredient(s) | Effect |
|----------------------------|---|
| sulphamic acid | No data available |
| alkylbenzenesulphonic acid | 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 |
|----------------------------|----------|---------------------|--------------------|---------|-------------|---------------|------------------------------------|
| sulphamic acid | | | No data available | | | | |
| alkylbenzenesulphonic acid | NOAEL | Teratogenic effects | 300 | Rat | Read across | 20 day(s) | |

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 |
|----------------------------|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| sulphamic acid | | No data available | | | | |
| alkylbenzenesulphonic 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 |
|----------------------------|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| sulphamic acid | | No data available | | | | |
| alkylbenzenesulphonic acid | | No data available | | | | |

Sub-chronic inhalation toxicity

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| Ingredient(s) | Endpoint | Value (mg/kg bw/d) | Species | Method | Exposure time (days) | Specific effects and organs affected |
|----------------------------|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| sulphamic acid | | No data available | | | | |
| alkylbenzenesulphonic 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 |
|----------------------------|----------------|----------|--------------------|---------|-------------|---------------|--------------------------------------|--------|
| sulphamic acid | | | No data available | | | | | |
| alkylbenzenesulphonic acid | Oral | NOAEL | 85 | Rat | Read across | 9 month(s) | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|----------------------------|-------------------|
| sulphamic acid | No data available |
| alkylbenzenesulphonic acid | No data available |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|----------------------------|-------------------|
| sulphamic acid | No data available |
| alkylbenzenesulphonic acid | 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) |
|----------------------------|------------------|--------------|----------------------------|-------------------|-------------------|
| sulphamic acid | LC ₅₀ | 70.3 | <i>Pimephales promelas</i> | Method not given | 96 |
| alkylbenzenesulphonic acid | LC ₅₀ | 1 - 10 | <i>Cyprinus carpio</i> | OECD 203 (EU C.1) | 96 |

Aquatic short-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|----------------------------|------------------|-------------------|-----------------------------|-------------------|-------------------|
| sulphamic acid | | No data available | | | - |
| alkylbenzenesulphonic acid | EC ₅₀ | 1 - 10 | <i>Daphnia magna</i> Straus | OECD 202 (EU C.2) | 48 |

Aquatic short-term toxicity - algae

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|----------------------------|------------------|-------------------|--------------------------------|-------------------|-------------------|
| sulphamic acid | | No data available | | | - |
| alkylbenzenesulphonic acid | EC ₅₀ | 10 - 100 | <i>Desmodesmus subspicatus</i> | OECD 201 (EU C.3) | 72 |

Aquatic short-term toxicity - marine species

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (days) |
|----------------------------|----------|-------------------|---------|--------|----------------------|
| sulphamic acid | | No data available | | | - |
| alkylbenzenesulphonic acid | | No data available | | | - |

Impact on sewage plants - toxicity to bacteria

| Ingredient(s) | Endpoint | Value (mg/l) | Inoculum | Method | Exposure time |
|----------------|------------------|--------------|---------------------------|------------------|---------------|
| sulphamic acid | EC ₁₀ | > 1000 | <i>Pseudomonas putida</i> | Method not given | 16 hour(s) |

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| | | | | | |
|----------------------------|--|-------------------|--|--|--|
| alkylbenzenesulphonic acid | | No data available | | | |
|----------------------------|--|-------------------|--|--|--|

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|----------------------------|----------|-------------------|----------------------------|-------------|---------------|------------------|
| sulphamic acid | | No data available | | | | |
| alkylbenzenesulphonic acid | NOEC | 0.1 - 1 | <i>Lepomis macrochirus</i> | Read across | 28 day(s) | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|----------------------------|----------|-------------------|----------------------|-------------|---------------|------------------|
| sulphamic acid | | No data available | | | | |
| alkylbenzenesulphonic acid | NOEC | 1 - 10 | <i>Not specified</i> | Read across | 32 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 |
|----------------------------|----------|---------------------------|---------|--------|----------------------|------------------|
| sulphamic acid | | No data available | | | - | |
| alkylbenzenesulphonic 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 |
|----------------------------|------------------|-----------------------|-----------------------|----------|----------------------|------------------|
| sulphamic acid | | No data available | | | - | |
| alkylbenzenesulphonic acid | LD ₅₀ | > 1000 | <i>Eisenia fetida</i> | OECD 207 | 14 | |

Terrestrial toxicity - plants, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|----------------------------|------------------|-----------------------|---------|----------|----------------------|------------------|
| sulphamic acid | | No data available | | | - | |
| alkylbenzenesulphonic acid | EC ₅₀ | 167 | | OECD 208 | 21 | |

Terrestrial toxicity - birds, if available:

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure time (days) | Effects observed |
|----------------------------|----------|-------------------|---------|--------|----------------------|------------------|
| sulphamic acid | | No data available | | | - | |
| alkylbenzenesulphonic 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 |
|----------------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| sulphamic acid | | No data available | | | - | |
| alkylbenzenesulphonic 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 |
|----------------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| sulphamic acid | | No data available | | | - | |
| alkylbenzenesulphonic 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:

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Biodegradation

Ready biodegradability - aerobic conditions

| Ingredient(s) | Inoculum | Analytical method | DT ₅₀ | Method | Evaluation |
|----------------------------|----------|-------------------|-------------------|-----------|--------------------------------------|
| sulphamic acid | | | | | Not applicable (inorganic substance) |
| alkylbenzenesulphonic acid | | | 94 % in 28 day(s) | OECD 301A | 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 Kow)

| Ingredient(s) | Value | Method | Evaluation | Remark |
|----------------------------|-------|------------------|-----------------------------------|--------|
| sulphamic acid | 0.1 | | No bioaccumulation expected | |
| alkylbenzenesulphonic acid | 3.2 | Method not given | Low potential for bioaccumulation | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|----------------------------|-------------------|---------|------------------|-----------------------------------|--------|
| sulphamic acid | No data available | | | | |
| alkylbenzenesulphonic acid | 2 - 500 | | Method not given | Low potential for bioaccumulation | |

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 |
|----------------------------|--------------------------------|-------------------------------------|--------|--------------------|----------------------|
| sulphamic acid | No data available | | | | |
| alkylbenzenesulphonic acid | No data available | | | | Low mobility in soil |

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:

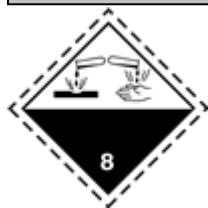
20 01 29* - detergents containing dangerous substances.

Empty packaging**Recommendation:**

Dispose of observing national or local regulations.

Suitable cleaning agents:

Water, if necessary with cleaning agent.

SECTION 14: Transport information**Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)****14.1 UN number:** 1760**14.2 UN proper shipping name:**

Corrosive liquid, n.o.s. (sulphamic acid , alkylsulphonic acid)

14.3 Transport hazard class(es):**Class:** 8**Label(s):** 8**14.4 Packing group:** III**14.5 Environmental hazards:****Environmentally hazardous:** No**Marine pollutant:** No**14.6 Special precautions for user:** None known.**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:** The product is not transported in bulk tankers.**Other relevant information:**

Domestos Professional Toilet Limescale Remover

ADR

Classification code: C9

Tunnel restriction code: E

Hazard identification number: 80

IMO/IMDG

EmS: F-A, S-B

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

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

anionic surfactants
perfumes

<5%

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: MSDS8040

Version: 02.1

Revision: 2017-06-04

Reason for revision:

This data sheet contains changes from the previous version in section(s): 2, 3, 16

Classification procedure

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

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

- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- H319 - Causes serious eye irritation.
- H412 - Harmful to aquatic life with long lasting effects.

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