

Domestos(*) Professional Toilet Limescale Remover

Revision: 2012-11-23

Version 01

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

1.1 Product identifier

Trade name: Domestos(*) Professional Toilet Limescale Remover

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

Diversey Ltd

Contact details

Weston Favell Centre, Northampton NN3 8PD, United Kingdom

Tel: 01604 405311, Fax: 01604 406809

Regulatory Email: MSDSinfoUK@sealedair.com

1.4 Emergency telephone number

For medical or environmental emergency only:

call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified and labelled in accordance with Directive 1999/45/EC and corresponding national legislation.

Indication of danger

Xi - Irritant

Risk phrases:

R36/38 - Irritating to eyes and skin.

2.2 Label elements



Xi - Irritant

Risk phrases:

R36/38 - Irritating to eyes and skin.

Safety phrases:

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37 - Wear suitable gloves.

2.3 Other hazards

No other hazards known. The product does not meet the criteria for PBT or vPvB in accordance with Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

| Ingredient(s) | EC number | CAS number | REACH number | Classification | Classification (EC) 1272/2008 | Notes | Weight percent |
|---------------|-----------|------------|--------------|----------------|----------------------------------|-------|-------------------|
|---------------|-----------|------------|--------------|----------------|----------------------------------|-------|-------------------|

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| | | | | | | | |
|----------------------------|-----------|------------|--------------------|------------------|---|--|------|
| sulphamic acid | 226-218-8 | 5329-14-6 | 01-2119488633-28 | Xi; R36/38-52/53 | Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Aquatic Chronic 3 (H412) | | 3-10 |
| alkylbenzenesulphonic acid | 287-494-3 | 85536-14-7 | 01-2111-9490234-40 | C; R22-34 | Skin Corr. 1C (H314) Acute Tox. 4 (H302) | | 3-10 |
| citric acid | 201-069-1 | 77-92-9 | [1] | Xi; R36 | Eye Irrit. 2 (H319) | | 3-10 |

* Polymer.

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

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

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

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

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

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

SECTION 4: First aid measures

4.1 Description of first aid measures

| | |
|--|--|
| Inhalation | Remove from source of exposure. Get medical attention. |
| Skin contact | Not required under normal use. Rinse with plenty of water. If irritation develops get medical attention. |
| Eye contact | Wash off immediately with plenty of water. Get medical attention. |
| Ingestion | Remove material from mouth. Immediately drink 1-2 glasses of water or milk. Get medical attention. |
| 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 | Causes irritation. |
| Skin contact | Causes irritation. |
| Eye contact | Causes irritation. |
| Ingestion | Causes irritation. |
| Sensitisation | No known effects. |

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 suitable gloves.

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

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Do not mix with other products unless advised by Diversey. For advice on general occupational hygiene see subsection 8.2. For environmental exposure controls see subsection 8.2. For incompatible materials see subsection 10.5.

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Prevention of fire and explosion

No special precautions required.

7.2 Conditions for safe storage, including any incompatibilities**Requirements for storage rooms / facilities:**

In accordance with local and national regulations.

Combined storage in storage rooms / facilities:

In accordance with local and national regulations. Store away from products containing chlorine-based bleaching agents or sulphites.

Basic storage conditions

Store in original container. Keep container tightly closed. For conditions to avoid see subsection 10.4.

7.3 Specific end use(s)

No specific advice for end use available.

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

Air limit values, if available:

Biological limit values, if available:

Recommended monitoring procedures, if available:

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

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

DNEL oral exposure - Consumer (mg/kg bw)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|----------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| sulphamic acid | No data available | No data available | No data available | 1.06 |
| alkylbenzenesulphonic acid | No data available | No data available | No data available | 0.85 |
| citric acid | No data available | No data available | No data available | No data available |

DNEL dermal exposure - Worker

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects (mg/kg bw) | Long term - Local effects | Long term - Systemic effects (mg/kg bw) |
|----------------------------|----------------------------|--|---------------------------|---|
| sulphamic acid | No data available | No data available | No data available | No data available |
| alkylbenzenesulphonic acid | No data available | No data available | No data available | 170 |
| citric acid | No data available | No data available | No data available | No data available |

DNEL dermal exposure - Consumer

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects (mg/kg bw) | Long term - Local effects | Long term - Systemic effects (mg/kg bw) |
|----------------------------|----------------------------|--|---------------------------|---|
| sulphamic acid | No data available | No data available | No data available | No data available |
| alkylbenzenesulphonic acid | No data available | No data available | No data available | 85 |
| citric acid | No data available | No data available | No data available | No data available |

DNEL inhalatory exposure - Worker (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|----------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| sulphamic acid | No data available | No data available | No data available | 7.5 |
| alkylbenzenesulphonic acid | No data available | No data available | 12 | 12 |
| citric acid | No data available | No data available | No data available | No data available |

DNEL inhalatory exposure - Consumer (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|----------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| sulphamic acid | No data available | No data available | No data available | 1.85 |
| alkylbenzenesulphonic acid | No data available | No data available | 3 | 3 |
| citric acid | No data available | No data available | No data available | No data available |

Environmental exposure

Environmental exposure - PNEC

| Ingredient(s) | Surface water, fresh (mg/l) | Surface water, marine (mg/l) | Intermittent (mg/l) | Sewage treatment plant (mg/l) |
|----------------------------|-----------------------------|------------------------------|---------------------|-------------------------------|
| sulphamic acid | 0.3 | 0.03 | 0.3 | 200 |
| alkylbenzenesulphonic acid | 0.278 | 0.0287 | 0.0167 | 3.43 |
| citric acid | No data available | No data available | No data available | No data available |

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Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m³) |
|----------------------------|------------------------------|--------------------------|-------------------|-------------------|
| sulphamic acid | 0.3 | 0.03 | 3 | No data available |
| alkylbenzenesulphonic acid | 0.287 | 0.287 | 35 | No data available |
| citric acid | No data available | No data available | No data available | No data available |

8.2 Exposure controls

General health and safety measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Take off immediately all contaminated clothing. Wash hands before breaks and at the end of workday. Avoid contact with skin and eyes.

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

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

Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

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

Personal protective equipment

Eye / face protection:

Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product.

Hand protection:

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: ≥ 480 min

Material thickness: ≥ 0.7 mm

Suggested gloves for protection against splashes:

Material: nitrile rubber

Penetration time: ≥ 30 min

Material thickness: ≥ 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)

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

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

Flash point (°C): Not applicable.

Sustained combustion: Not determined

Evaporation rate: Not determined

Flammability (solid, gas): Not determined

Upper/lower flammability limit (%): Not determined

Vapour pressure: Not determined

Vapour density: Not determined

Relative density: 1.06 g/cm³ (20°C)

Solubility in / Miscibility with Water: Fully miscible

Autoignition temperature: Not determined

Decomposition temperature: Not determined

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

(according to IMDG/ADR regulation): Not determined

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.

10.6 Hazardous decomposition products

None known under normal storage and use conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixtures

No test data is available on the mixture

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 | ≥ 1600 | Rat | Method not given | |
| alkylbenzenesulphonic acid | LD ₅₀ | > 300 - 2000 | Rat | OECD 401 (EU B.1) | |
| citric acid | | No data available | | | |

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) | |
| citric acid | | No data available | | | |

Acute inhalative toxicity

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

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) | |
| citric acid | No data available | | | |

Respiratory tract irritation and corrosivity

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

Sensitisation by inhalation

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

Repeated dose toxicity

Sub-acute or sub-chronic oral toxicity

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

Sub-chronic inhalation toxicity

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

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| | | | | | | | |
|-------------|--|--|-------------------|--|--|--|--|
| citric acid | | | No data available | | | | |
|-------------|--|--|-------------------|--|--|--|--|

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mixture data:

Based on available data, the classification criteria are not met.

Substance data, where relevant and available

Carcinogenicity

| Ingredient(s) | Effect |
|----------------------------|---|
| sulphamic acid | No data available |
| alkylbenzenesulphonic acid | No evidence for carcinogenicity, weight-of-evidence |
| citric acid | No data available |

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) | No evidence for mutagenicity, negative test results | Method not given |
| citric acid | No data available | | 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 |
|----------------------------|----------|---------------------|--------------------|---------|-------------|---------------|------------------------------------|
| sulphamic acid | | | No data available | | | | |
| alkylbenzenesulphonic acid | NOAEL | Teratogenic effects | 300 | Rat | Read across | 20 day(s) | |
| citric acid | | | No data available | | | | |

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**

Mixtures

No test 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 | Pimephales promelas | Method not given | 96 |
| alkylbenzenesulphonic acid | LC ₅₀ | 1 - 10 | Cyprinus carpio | OECD 203 | 96 |
| citric acid | | No data available | | | |

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 | Daphnia magna Straus | OECD 202 | 48 |
| citric acid | | No data available | | | |

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 | Desmodesmus subspicatus | OECD 201 | 72 |
| citric acid | | No data available | | | |

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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 | | | |
| citric 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 | Pseudomonas putida | Method not given | 16 hour(s) |
| alkylbenzenesulphonic acid | | No data available | | | |
| citric 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 | Lepomis macrochirus | Read across | 28 day(s) | |
| citric acid | | No data available | | | | |

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 | Not specified | Read across | 32 day(s) | |
| citric acid | | No data available | | | | |

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if 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 |
|----------------------------|------------------|-----------------------|----------------|----------|----------------------|------------------|
| alkylbenzenesulphonic acid | LD ₅₀ | > 1000 | Eisenia fetida | OECD 207 | 14 | |

Terrestrial toxicity - plants, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|----------------------------|------------------|-----------------------|---------|----------|----------------------|------------------|
| alkylbenzenesulphonic acid | EC ₅₀ | 167 | | OECD 208 | 21 | |

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

Terrestrial toxicity - soil bacteria, if available:

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

| Ingredient(s) | Inoculum | Analytical method | DT ₅₀ | Method | Evaluation |
|----------------------------|----------|-------------------|---------------------|-----------|--------------------------------------|
| sulphamic acid | | | | | Not applicable (inorganic substance) |
| alkylbenzenesulphonic acid | | | > 70 % in 28 day(s) | OECD 301A | Readily biodegradable |

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| | | | | | |
|-------------|--|--|--|--|-------------------|
| citric acid | | | | | No data available |
|-------------|--|--|--|--|-------------------|

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

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

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

| Ingredient(s) | Value | Method | Evaluation | Remark |
|----------------------------|-------------------|------------------|-----------------------------------|--------|
| sulphamic acid | 0.1 | | No bioaccumulation expected | |
| alkylbenzenesulphonic acid | 2.0 | Method not given | Low potential for bioaccumulation | |
| citric acid | No data available | | | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|----------------------------|-------------------|---------|----------|-----------------------------------|--------|
| sulphamic acid | No data available | | | | |
| alkylbenzenesulphonic acid | No data available | | OECD 305 | Low potential for bioaccumulation | |
| citric acid | 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 |
|----------------------------|--------------------------------|-------------------------------------|--------|--------------------|----------------------|
| sulphamic acid | No data available | | | | |
| alkylbenzenesulphonic acid | No data available | | | | Low mobility in soil |
| citric acid | 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 Dispose of in compliance with all Federal, state, provincial, and local laws and regulations.
European Waste Catalogue: 20 01 29* - detergents containing dangerous substances.

Empty packaging**Recommendation:**

Dispose of observing national or local regulations.

Suitable cleaning agents

Water, if necessary with cleaning agent.

SECTION 14: Transport information**ADR, RID, ADN, IMO/IMDG, ICAO/IATA**

14.1 UN number: 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 73/78 and the IBC Code: The product is not transported in bulk tankers.

Other relevant information:**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****Ingredients according to EC Detergents Regulation 648/2004**

anionic surfactants

< 5%

perfumes

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

() This brand is a registered trademark of Unilever used under license by Diversey*

MSDS code: MSDS8040**Version** 01**Revision:** 2012-11-23**Reason for revision:**

Overall design adjusted in accordance with Regulation (EC) No 1907/2006, Annex II

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

- R34 - Causes burns.
- R22 - Harmful if swallowed.
- R36 - Irritating to eyes.
- R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R36/38 - Irritating to eyes and skin.
- 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

End of Safety Data Sheet