

Suma Alu L10

Revision: 2014-10-08

Version: 06.0

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

1.1 Product identifier

Trade name: Suma Alu L10

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

Identified uses:

For professional use only.

AISE-P202 - Dishwash product. Automatic 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: MSDSinfoUK@sealedair.com

1.4 Emergency telephone number

For medical or environmental emergency only:

call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified and labelled in accordance with Regulation (EC) No 1272/2008.

Skin Corr. 1B (H314)

Carc. 2 (H351)

Met. Corr. 1 (H290)

Classification in accordance with Directive 1999/45/EC and corresponding national legislation

Indication of danger

C - Corrosive

Risk phrases:

R34 - Causes burns.

R40 - Limited evidence of a carcinogenic effect.

2.2 Label elements



Signal word: Danger

Contains disodium/dipotassium metasilicate (Sodium/Potassium Metasilicate), trisodium nitrilotriacetate (Trisodium NTA).

Hazard statements:

H314 - Causes severe skin burns and eye damage.

H351 - Suspected of causing cancer.

H290 - May be corrosive to metals.

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Precautionary statements:

P280 - Wear protective gloves, protective clothing and eye or face protection.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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.

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 (1999/45/EC) | Notes | Weight percent |
|-----------------------------------|------------------------|------------|------------------|---|------------------------------------|-------|----------------|
| disodium/dipotassium metasilicate | 215-687-4 215-199-1 | - | [1] | Skin Corr. 1B (H314) STOT SE 3 (H335) Met. Corr. 1 (H290) | C;R34 Xi;R37 | | 10-20 |
| trisodium nitrilotriacetate | 225-768-6 | 5064-31-3 | 01-2119519239-36 | Carc. 2 (H351) Acute Tox. 4 (H302) Eye Irrit. 2 (H319) | Xn;R22 Xi;R36 Carc.Cat.3;R40 | | 3-10 |
| sodium hydroxide | 215-185-5 | 1310-73-2 | 01-2119457892-27 | Skin Corr. 1A (H314) Met. Corr. 1 (H290) | C;R35 | | 0.1-1 |

* Polymer.

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

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

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

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

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

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

SECTION 4: First aid measures**4.1 Description of first aid measures****General Information:**

IF exposed or concerned: Get medical attention or advice.

Inhalation

Get medical attention or advice if you feel unwell.

Skin contact:

Wash skin with plenty of lukewarm, gently flowing water for at least 30 minutes. Take off immediately all contaminated clothing and wash it before re-use. Immediately call a POISON CENTRE, doctor or physician.

Eye contact:

Immediately rinse eyes cautiously with lukewarm water for several 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. Do NOT induce vomiting. Keep at rest.

Self-protection of first aider:

Immediately call a POISON CENTRE, doctor or physician.

Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed**Inhalation:**

Suspected of causing cancer.

Skin contact:

Causes severe burns. Suspected of causing cancer.

Eye contact:

Causes severe or permanent damage.

Ingestion:

Suspected of causing cancer. Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

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**

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Wear suitable protective clothing, gloves and 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

Use neutralising agent. 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 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. Store used personal protective equipment separately. Use personal protective equipment as required. Avoid contact with skin and 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:

| Ingredient(s) | UK - Long term value(s) | UK - Short term value(s) |
|------------------|-------------------------|--------------------------|
| sodium hydroxide | | 2 mg/m ³ |

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 |
|-----------------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| disodium/dipotassium metasilicate | No data available | No data available | No data available | No data available |
| trisodium nitrilotriacetate | No data available | 0.9 | No data available | 0.3 |
| sodium hydroxide | 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) |
|-----------------------------------|----------------------------|--|---------------------------|---|
| disodium/dipotassium metasilicate | No data available | No data available | No data available | No data available |
| trisodium nitrilotriacetate | No data available | No data available | No data available | No data available |
| sodium hydroxide | 2 % | 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) |
|-----------------------------------|----------------------------|--|---------------------------|---|
| disodium/dipotassium metasilicate | No data available | No data available | No data available | No data available |
| trisodium nitrilotriacetate | No data available | No data available | No data available | No data available |
| sodium hydroxide | 2 % | No data available | No data available | No data available |

DNEL inhalatory exposure - Worker (mg/m³)

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| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|-----------------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| disodium/dipotassium metasilicate | No data available | No data available | No data available | No data available |
| trisodium nitrilotriacetate | 5.25 | 5.25 | 3.5 | 3.2 |
| sodium hydroxide | No data available | No data available | 1 | 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 |
|-----------------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| disodium/dipotassium metasilicate | No data available | No data available | No data available | No data available |
| trisodium nitrilotriacetate | 1.75 | 1.75 | 1.75 | 0.8 |
| sodium hydroxide | No data available | No data available | 1 | 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) |
|-----------------------------------|-----------------------------|------------------------------|---------------------|-------------------------------|
| disodium/dipotassium metasilicate | No data available | No data available | No data available | No data available |
| trisodium nitrilotriacetate | 0.93 | 0.093 | 0.8 | 270 |
| sodium hydroxide | No data available | No data available | No data available | No data available |

Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m ³) |
|-----------------------------------|------------------------------|--------------------------|-------------------|--------------------------|
| disodium/dipotassium metasilicate | No data available | No data available | No data available | No data available |
| trisodium nitrilotriacetate | 3.64 | 0.364 | 0.182 | 0.8 |
| sodium hydroxide | No data available | No data available | No data available | No data available |

8.2 Exposure controls

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

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

Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

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

Appropriate engineering controls:

If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required.

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). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.

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:

Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur.

Respiratory protection:

No special requirements under normal use conditions.

Environmental exposure controls:

Should not reach sewage water or drainage ditch undiluted or unneutralised.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (%): 0.4

Appropriate engineering controls:

No special requirements under normal use conditions.

Appropriate organisational controls:

No special requirements under normal use conditions.

Personal protective equipment

Eye / face protection:

No special requirements under normal use conditions.

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Hand protection: No special requirements under normal use conditions.
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: Clear, Pale, Yellow

Odour: Product specific

Odour threshold: Not applicable

pH: ≥ 12 (neat)

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

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

Method / remark

Substance data, boiling point

| Ingredient(s) | Value (°C) | Method | Atmospheric pressure (hPa) |
|-----------------------------------|-------------------|------------------|----------------------------|
| disodium/dipotassium metasilicate | No data available | | |
| trisodium nitrilotriacetate | 100 | Method not given | 1013 |
| sodium hydroxide | > 990 | Method not given | |

Method / remark

Flash point (°C): Not applicable.

Sustained combustion: Not determined

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

Substance data, vapour pressure

| Ingredient(s) | Value (Pa) | Method | Temperature (°C) |
|-----------------------------------|-------------------|------------------|------------------|
| disodium/dipotassium metasilicate | No data available | | |
| trisodium nitrilotriacetate | 2400 | Method not given | 20 |
| sodium hydroxide | < 1330 | Method not given | 20 |

Method / remark

Vapour density: Not determined

Relative density: 1.25 g/cm³ (20 °C)

Solubility in / Miscibility with Water: Fully miscible

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|-----------------------------------|-------------------|------------------|------------------|
| disodium/dipotassium metasilicate | No data available | | |
| trisodium nitrilotriacetate | Soluble | Method not given | |
| sodium hydroxide | 1000 | 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 determined

Viscosity: Not determined

Explosive properties: Not explosive.

Oxidising properties: Not oxidising

9.2 Other information

Surface tension (N/m): Not determined

Corrosion to metals: Corrosive

Weight of evidence

Substance data, dissociation constant, if available:

SECTION 10: Stability and reactivity

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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 acids.

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): >2000

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) |
|-----------------------------------|------------------|-------------------|---------|-------------------|-------------------|
| disodium/dipotassium metasilicate | | No data available | | | |
| trisodium nitrilotriacetate | LD ₅₀ | 1740 | Rat | OECD 401 (EU B.1) | |
| sodium hydroxide | | No data available | | | |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|-----------------------------------|------------------|-------------------|---------|--------------------|-------------------|
| disodium/dipotassium metasilicate | | No data available | | | |
| trisodium nitrilotriacetate | LD ₅₀ | > 10000 | Rat | Non guideline test | |
| sodium hydroxide | | No data available | | | |

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-----------------------------------|------------------|-------------------|---------|------------------|-------------------|
| disodium/dipotassium metasilicate | | No data available | | | |
| trisodium nitrilotriacetate | LC ₅₀ | > 5 | Rat | Method not given | 4 |
| sodium hydroxide | | No data available | | | |

Irritation and corrosivity

Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-----------------------------------|-------------------|---------|------------------|---------------|
| disodium/dipotassium metasilicate | No data available | | | |
| trisodium nitrilotriacetate | Not irritant | Rabbit | Method not given | |
| sodium hydroxide | Corrosive | Rabbit | Method not given | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-----------------------------------|-------------------|---------|------------------|---------------|
| disodium/dipotassium metasilicate | No data available | | | |
| trisodium nitrilotriacetate | Irritant | Rabbit | Method not given | |
| sodium hydroxide | Corrosive | Rabbit | Method not given | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|---------------|--------|---------|--------|---------------|
|---------------|--------|---------|--------|---------------|

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| | | | | |
|-----------------------------------|-------------------|--|--|--|
| disodium/dipotassium metasilicate | No data available | | | |
| trisodium nitrilotriacetate | No data available | | | |
| sodium hydroxide | No data available | | | |

Sensitisation

Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|-----------------------------------|-------------------|------------|----------------------------------|-------------------|
| disodium/dipotassium metasilicate | No data available | | | |
| trisodium nitrilotriacetate | Not sensitising | Guinea pig | OECD 406 (EU B.6) / Buehler test | |
| sodium hydroxide | Not sensitising | | Human repeated patch test | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|-----------------------------------|-------------------|---------|--------|---------------|
| disodium/dipotassium metasilicate | No data available | | | |
| trisodium nitrilotriacetate | No data available | | | |
| sodium hydroxide | 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) |
|-----------------------------------|---|---|---|---------------------------------------|
| disodium/dipotassium metasilicate | No data available | | No data available | |
| trisodium nitrilotriacetate | No evidence for mutagenicity, negative test results | | No evidence for mutagenicity, negative test results | |
| sodium hydroxide | No evidence for mutagenicity, negative test results | DNA repair test on rat hepatocytes OECD 473 | No evidence for mutagenicity, negative test results | OECD 474 (EU B.12) OECD 475 (EU B.11) |

Carcinogenicity

| Ingredient(s) | Effect |
|-----------------------------------|---|
| disodium/dipotassium metasilicate | No data available |
| trisodium nitrilotriacetate | Limited evidence of a carcinogenic effect. |
| sodium hydroxide | 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 |
|-----------------------------------|----------|------------------------|--------------------|---------|---------------------------|---------------|--|
| disodium/dipotassium metasilicate | | | No data available | | | | |
| trisodium nitrilotriacetate | NOEL | Developmental toxicity | 90 | Rat | OECD 416, (EU B.35), oral | | No evidence for reproductive toxicity |
| sodium hydroxide | | | No data available | | | | No evidence for developmental toxicity No evidence for reproductive toxicity |

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 |
|-----------------------------------|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| disodium/dipotassium metasilicate | | No data available | | | | |
| trisodium nitrilotriacetate | | No data available | | | | |
| sodium hydroxide | | 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 |
|-----------------------------------|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| disodium/dipotassium metasilicate | | No data available | | | | |
| trisodium nitrilotriacetate | | No data available | | | | |
| sodium hydroxide | | 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 |
|-----------------------------------|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| disodium/dipotassium metasilicate | | No data available | | | | |
| trisodium nitrilotriacetate | | No data available | | | | |

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|------------------|--|-------------------|--|--|--|--|
| sodium hydroxide | | 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 |
|-----------------------------------|----------------|----------|--------------------|---------|--------------------|---------------|--------------------------------------|--------|
| disodium/dipotassium metasilicate | | | No data available | | | | | |
| trisodium nitrilotriacetate | | NOAEL | 0.231 | Rat | Non guideline test | | | |
| sodium hydroxide | | | No data available | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|-----------------------------------|-------------------|
| disodium/dipotassium metasilicate | No data available |
| trisodium nitrilotriacetate | No data available |
| sodium hydroxide | No data available |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|-----------------------------------|-------------------|
| disodium/dipotassium metasilicate | No data available |
| trisodium nitrilotriacetate | No data available |
| sodium hydroxide | 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) |
|-----------------------------------|------------------|-------------------|----------------------------|------------------|-------------------|
| disodium/dipotassium metasilicate | | No data available | | | |
| trisodium nitrilotriacetate | LC ₅₀ | > 100 | <i>Pimephales promelas</i> | APHA 1995 | |
| sodium hydroxide | LC ₅₀ | 35 | <i>Various species</i> | Method not given | 96 |

Aquatic short-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-----------------------------------|------------------|-------------------|-------------------------|------------------|-------------------|
| disodium/dipotassium metasilicate | | No data available | | | |
| trisodium nitrilotriacetate | EC ₅₀ | 98 | <i>Not specified</i> | Method not given | 96 |
| sodium hydroxide | EC ₅₀ | 40.4 | <i>Ceriodaphnia sp.</i> | Method not given | 48 |

Aquatic short-term toxicity - algae

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-----------------------------------|--------------------------------|-------------------|--|------------------|-------------------|
| disodium/dipotassium metasilicate | | No data available | | | |
| trisodium nitrilotriacetate | E _r C ₅₀ | 91.5 | <i>Pseudokirchneriella subcapitata</i> | OECD 201 | 72 |
| sodium hydroxide | EC ₅₀ | 22 | <i>Photobacterium phosphoreum</i> | Method not given | 0.25 |

Aquatic short-term toxicity - marine species

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (days) |
|-----------------------------------|----------|-------------------|---------|--------|----------------------|
| disodium/dipotassium metasilicate | | No data available | | | |

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|-----------------------------|--|-------------------|--|--|--|
| trisodium nitrilotriacetate | | No data available | | | |
| sodium hydroxide | | No data available | | | |

Impact on sewage plants - toxicity to bacteria

| Ingredient(s) | Endpoint | Value (mg/l) | Inoculum | Method | Exposure time |
|-----------------------------------|------------------|-------------------|---------------------------|------------------|---------------|
| disodium/dipotassium metasilicate | | No data available | | | |
| trisodium nitrilotriacetate | EC ₅₀ | 3200 - 5600 | <i>Pseudomonas putida</i> | Method not given | 8 hour(s) |
| sodium hydroxide | | No data available | | | |

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|-----------------------------------|----------|-------------------|---------|--------|---------------|------------------|
| disodium/dipotassium metasilicate | | No data available | | | | |
| trisodium nitrilotriacetate | | No data available | | | | |
| sodium hydroxide | | No data available | | | | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|-----------------------------------|----------|-------------------|---------|--------|---------------|------------------|
| disodium/dipotassium metasilicate | | No data available | | | | |
| trisodium nitrilotriacetate | | No data available | | | | |
| sodium hydroxide | | 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 |
|-----------------------------------|----------|---------------------------|---------|--------|----------------------|------------------|
| disodium/dipotassium metasilicate | | No data available | | | | |
| trisodium nitrilotriacetate | | No data available | | | | |
| sodium hydroxide | | No data available | | | | |

Terrestrial toxicity

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

Terrestrial toxicity - soil bacteria, if available:

12.2 Persistence and degradability**Abiotic degradation**

Abiotic degradation - photodegradation in air, if available:

| Ingredient(s) | Half-life time | Method | Evaluation | Remark |
|------------------|----------------|------------------|-------------------------|--------|
| sodium hydroxide | 13 second(s) | Method not given | Rapidly photodegradable | |

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 |
|-----------------------------------|----------|-------------------|-------------------------|-----------|--------------------------------------|
| disodium/dipotassium metasilicate | | | | | No data available |
| trisodium nitrilotriacetate | | BOD removal | 90 - 100 % in 28 day(s) | OECD 301B | Readily biodegradable |
| sodium hydroxide | | | | | Not applicable (inorganic substance) |

Ready biodegradability - anaerobic and marine conditions, if available:

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Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

| Ingredient(s) | Value | Method | Evaluation | Remark |
|-----------------------------------|-------------------|------------------|--------------------------------------|--------|
| disodium/dipotassium metasilicate | No data available | | | |
| trisodium nitrilotriacetate | -13.2 | Method not given | No bioaccumulation expected | |
| sodium hydroxide | No data available | | Not relevant, does not bioaccumulate | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|-----------------------------------|-------------------|---------|------------------|-----------------------------|--------|
| disodium/dipotassium metasilicate | No data available | | | | |
| trisodium nitrilotriacetate | < 3 | | Method not given | No bioaccumulation expected | |
| sodium hydroxide | 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 |
|-----------------------------------|--------------------------------|-------------------------------------|--------|--------------------|--|
| disodium/dipotassium metasilicate | No data available | | | | |
| trisodium nitrilotriacetate | No data available | | | | Adsorption to solid soil phase is not expected |
| sodium hydroxide | No data available | | | | Mobile 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 15* - alkalines.

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: 1719

14.2 UN proper shipping name:

Caustic alkali liquid, n.o.s. (disodium-/dipotassium trioxosilicate)

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: C5

Tunnel restriction code: E

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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**

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

Ingredients according to EC Detergents Regulation 648/2004

NTA (nitrilotriacetic acid) and salts thereof
polycarboxylates

5 - 15%
< 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

MSDS code: MSDS1974

Version: 06.0

Revision: 2014-10-08

Reason for revision:

Overall design adjusted in accordance with Amendment 453/2010, Annex II of Regulation (EC) No 1907/2006, This data sheet contains changes from the previous version in section(s):, 3, 8

Classification procedure

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

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

- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.
- H351 - Suspected of causing cancer.
- R22 - Harmful if swallowed.
- R34 - Causes burns.
- R35 - Causes severe burns.
- R36 - Irritating to eyes.
- R37 - Irritating to respiratory system.
- R40 - Limited evidence of a carcinogenic effect.

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