

Suma Combi+ LA6

Revision: 2014-02-06

Version: 02

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

1.1 Product identifier

Trade name: Suma Combi+ LA6

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 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

C - Corrosive

Risk phrases:

R35 - Causes severe burns.

R40 - Limited evidence of a carcinogenic effect.

2.2 Label elements



C - Corrosive

Contains trisodium nitrilotriacetate, sodium hydroxide

Risk phrases:

R35 - Causes severe burns.

R40 - Limited evidence of a carcinogenic effect.

Safety phrases:

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

S28a - After contact with skin, wash immediately with plenty of water.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

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.

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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 |
|--|-----------|------------|-------------------|------------------------------------|--|-------|----------------|
| trisodium nitrilotriacetate | 225-768-6 | 5064-31-3 | 01-2119519239-36 | Xn;R22 Xi;R36 Carc.Cat.3;R40 | Carc. 2 (H351) Acute Tox. 4 (H302) Eye Irrit. 2 (H319) | | 20-30 |
| sodium hydroxide | 215-185-5 | 1310-73-2 | 01-2119457892-27 | C;R35 | Skin Corr. 1A (H314) Met. Corr. 1 (H290) | | 3-10 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | 223-267-7 | 3794-83-0 | [1] | Xn;R22 Xi;R36/38 | Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) | | 1-3 |
| methanol | 200-659-6 | 67-56-1 | No data available | F;R11 T;R23/24/25-39/23/24/25 | Flam. Liq. 2 (H225) Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) | | 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 unconscious place in recovery position and seek medical advice.

Inhalation

Remove from source of exposure. Get medical attention immediately.

Skin contact:

Immediately wash off with plenty of water. Take off all contaminated clothing immediately. Get medical attention.

Eye contact:

Wash off immediately with plenty of water. Get medical attention immediately.

Ingestion:

Remove material from mouth. Immediately drink 1-2 glasses of water or milk. Get medical attention immediately.

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:**

Severe irritant, may cause respiratory tract irritation.

Skin contact:

Causes severe burns.

Eye contact:

Causes severe or permanent damage.

Ingestion:

Causes severe burns. Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

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 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 onto dry sand or similar inert material.

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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.

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. For incompatible materials see subsection 10.5.

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:

| Ingredient(s) | UK - Long term value(s) | UK - Short term value(s) |
|------------------|----------------------------------|----------------------------------|
| sodium hydroxide | | 2 mg/m ³ |
| methanol | 200 ppm 266 mg/m ³ | 250 ppm 333 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 |
|--|----------------------------|-------------------------------|---------------------------|------------------------------|
| 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 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | No data available | No data available | No data available |
| methanol | No data available | 8 | No data available | 8 |

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) |
|--|----------------------------|--|---------------------------|---|
| 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 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | No data available | No data available | No data available |
| methanol | No data available | 40 | No data available | 40 |

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) |
|--|----------------------------|--|---------------------------|---|
| 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 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | No data available | No data available | No data available |
| methanol | No data available | 8 | No data available | 8 |

DNEL inhalatory exposure - Worker (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|-----------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| trisodium nitrilotriacetate | No data available | 9.6 | No data available | 3.2 |

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| | | | | |
|--|-------------------|-------------------|-------------------|-------------------|
| sodium hydroxide | No data available | No data available | 1 | No data available |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | No data available | No data available | No data available |
| methanol | 260 | 260 | 260 | 260 |

DNEL inhalatory exposure - Consumer (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|--|----------------------------|-------------------------------|---------------------------|------------------------------|
| trisodium nitrilotriacetate | No data available | 2.4 | No data available | 0.8 |
| sodium hydroxide | No data available | No data available | 1 | No data available |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | No data available | No data available | No data available |
| methanol | 50 | 50 | 50 | 50 |

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) |
|--|-----------------------------|------------------------------|---------------------|-------------------------------|
| trisodium nitrilotriacetate | 0.93 | 0.093 | 0.8 | 270 |
| sodium hydroxide | No data available | No data available | No data available | No data available |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | No data available | No data available | No data available |
| methanol | 154 | 15.4 | 1540 | 100 |

Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m ³) |
|--|------------------------------|--------------------------|-------------------|--------------------------|
| trisodium nitrilotriacetate | No data available | No data available | No data available | 0.8 |
| sodium hydroxide | No data available | No data available | No data available | No data available |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | No data available | No data available | No data available |
| methanol | 570.4 | No data available | 23.5 | 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:** 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. Where possible: use in automated/closed system and cover open containers. Transport over pipes. Filling with automatic systems. Use tools for manual handling of product.
- 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

Body protection:

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

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

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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.

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

Method / remark

Physical State: Liquid

Colour: Clear, 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

Substance data, boiling point

| Ingredient(s) | Value (°C) | Method | Atmospheric pressure (hPa) |
|--|-------------------|------------------|----------------------------|
| trisodium nitrilotriacetate | 100 | Method not given | 1013 |
| sodium hydroxide | > 990 | Method not given | 1013 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | |
| methanol | No data available | | |

Method / remark

Flash point (°C): Not applicable.

Sustained combustion: Not determined

Evaporation rate: Not determined

Flammability (solid, gas): Not determined

Upper/lower flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

Method / remark

Vapour pressure: Not determined

Substance data, vapour pressure

| Ingredient(s) | Value (Pa) | Method | Temperature (°C) |
|--|-------------------|------------------|------------------|
| trisodium nitrilotriacetate | 2400 | Method not given | 20 |
| sodium hydroxide | < 1330 | Method not given | 20 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | |
| methanol | No data available | | |

Method / remark

Vapour density: Not determined

Relative density: 1.28 g/cm³ (20°C)

Solubility in / Miscibility with Water: Fully miscible

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|--|-------------------|------------------|------------------|
| trisodium nitrilotriacetate | Soluble | Method not given | |
| sodium hydroxide | 1000 | Method not given | 20 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | |
| methanol | No data available | | |

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.

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9.2 Other information

Surface tension (N/m): Not determined

Corrosion to metals

(according to IMDG/ADR regulation): Not determined

Substance data, dissociation constant, if available:

SECTION 10: Stability and reactivity**10.1 Reactivity**

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid

None known under normal storage and use conditions.

10.5 Incompatible materials

Reacts with acids.

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) |
|--|------------------|-------------------|---------|-------------------|-------------------|
| trisodium nitrilotriacetate | LD ₅₀ | 1740 | Rat | OECD 401 (EU B.1) | |
| sodium hydroxide | | No data available | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | |
| methanol | | No data available | | | |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|--|------------------|-------------------|---------|--------------------|-------------------|
| trisodium nitrilotriacetate | LD ₅₀ | > 10000 | Rat | Non guideline test | |
| sodium hydroxide | | No data available | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | |
| methanol | | No data available | | | |

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--|------------------|-------------------|---------|------------------|-------------------|
| trisodium nitrilotriacetate | LC ₅₀ | > 5 | Rat | Method not given | 4 |
| sodium hydroxide | | No data available | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | |
| methanol | | No data available | | | |

Irritation and corrosivity

Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|-------------------|---------|------------------|---------------|
| trisodium nitrilotriacetate | Not irritant | Rabbit | Method not given | |
| sodium hydroxide | Corrosive | Rabbit | Method not given | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | | |

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| | | | | |
|----------|-------------------|--|--|--|
| methanol | No data available | | | |
|----------|-------------------|--|--|--|

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|-------------------|---------|------------------|---------------|
| trisodium nitrilotriacetate | Irritant | Rabbit | Method not given | |
| sodium hydroxide | Corrosive | Rabbit | Method not given | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | | |
| methanol | No data available | | | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|-------------------|---------|--------|---------------|
| trisodium nitrilotriacetate | No data available | | | |
| sodium hydroxide | No data available | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | | |
| methanol | No data available | | | |

Sensitisation

Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|--|-------------------|------------|----------------------------------|-------------------|
| trisodium nitrilotriacetate | Not sensitising | Guinea pig | OECD 406 (EU B.6) / Buehler test | |
| sodium hydroxide | Not sensitising | | Human repeated patch test | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | | |
| methanol | No data available | | | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|-------------------|---------|--------|---------------|
| trisodium nitrilotriacetate | No data available | | | |
| sodium hydroxide | No data available | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | | |
| methanol | 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 |
|--|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| trisodium nitrilotriacetate | | No data available | | | | |
| sodium hydroxide | | No data available | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | | |
| methanol | | 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 |
|--|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| trisodium nitrilotriacetate | | No data available | | | | |
| sodium hydroxide | | No data available | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | | |
| methanol | | 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 |
|--|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| trisodium nitrilotriacetate | | No data available | | | | |
| sodium hydroxide | | No data available | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | | |
| methanol | | 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 |
|-----------------------------|----------------|----------|--------------------|---------|--------------------|---------------|--------------------------------------|--------|
| trisodium nitrilotriacetate | | NOAEL | 0.231 | Rat | Non guideline test | | | |

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| | | | | | | | |
|--|--|--|-------------------|--|--|--|--|
| sodium hydroxide | | | No data available | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | | No data available | | | | |
| methanol | | | No data available | | | | |

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Limited evidence of a carcinogenic effect.

Substance data, where relevant and available:

Carcinogenicity

| Ingredient(s) | Effect |
|--|---|
| trisodium nitrilotriacetate | Limited evidence of a carcinogenic effect. |
| sodium hydroxide | No evidence for carcinogenicity, weight-of-evidence |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available |
| methanol | No data available |

Mutagenicity

| Ingredient(s) | Result (in-vitro) | Method (in-vitro) | Result (in-vivo) | Method (in-vivo) |
|--|---|---|---|---------------------------------------|
| 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) |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | No data available | |
| methanol | 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 |
|--|----------|------------------------|--------------------|---------|---------------------------|---------------|--|
| 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 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | | No data available | | | | |
| methanol | | | 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) |
|--|------------------|-------------------|---------------------|------------------|-------------------|
| trisodium nitrilotriacetate | LC ₅₀ | > 100 | Pimephales promelas | APHA 1995 | |
| sodium hydroxide | LC ₅₀ | 35 | Various species | Method not given | 96 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | |
| methanol | | No data available | | | |

Aquatic short-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-----------------------------|------------------|--------------|------------------|------------------|-------------------|
| trisodium nitrilotriacetate | EC ₅₀ | 98 | Not specified | Method not given | 96 |
| sodium hydroxide | EC ₅₀ | 40.4 | Ceriodaphnia sp. | Method not given | 48 |

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| | | | | | |
|--|--|-------------------|--|--|--|
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | |
| methanol | | No data available | | | |

Aquatic short-term toxicity - algae

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--|--------------------------------|-------------------|---------------------------------|------------------|-------------------|
| trisodium nitrilotriacetate | E _r C ₅₀ | 91.5 | Pseudokirchneriella subcapitata | OECD 201 | 72 |
| sodium hydroxide | EC ₅₀ | 22 | Photobacterium phosphoreum | Method not given | 0.25 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | |
| methanol | | No data available | | | |

Aquatic short-term toxicity - marine species

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (days) |
|--|----------|-------------------|---------|--------|----------------------|
| trisodium nitrilotriacetate | | No data available | | | |
| sodium hydroxide | | No data available | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | |
| methanol | | No data available | | | |

Impact on sewage plants - toxicity to bacteria

| Ingredient(s) | Endpoint | Value (mg/l) | Inoculum | Method | Exposure time |
|--|------------------|-------------------|--------------------|------------------|---------------|
| trisodium nitrilotriacetate | EC ₅₀ | 3200 - 5600 | Pseudomonas putida | Method not given | 8 hour(s) |
| sodium hydroxide | | No data available | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | |
| methanol | | No data available | | | |

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|--|----------|-------------------|---------|--------|---------------|------------------|
| trisodium nitrilotriacetate | | No data available | | | | |
| sodium hydroxide | | No data available | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | | |
| methanol | | No data available | | | | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|--|----------|-------------------|---------|--------|---------------|------------------|
| trisodium nitrilotriacetate | | No data available | | | | |
| sodium hydroxide | | No data available | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | | |
| methanol | | 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 |
|--|----------|---------------------------|---------|--------|----------------------|------------------|
| trisodium nitrilotriacetate | | No data available | | | | |
| sodium hydroxide | | No data available | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | | |
| methanol | | No data available | | | | |

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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 |
|--|----------|-------------------|-------------------------|-----------|--------------------------------------|
| trisodium nitrilotriacetate | | BOD removal | 90 - 100 % in 28 day(s) | OECD 301B | Readily biodegradable |
| sodium hydroxide | | | | | Not applicable (inorganic substance) |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | | | | No data available |
| methanol | | | | | 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 K_{ow})

| Ingredient(s) | Value | Method | Evaluation | Remark |
|--|-------------------|------------------|--------------------------------------|--------|
| trisodium nitrilotriacetate | -13.2 | Method not given | No bioaccumulation expected | |
| sodium hydroxide | No data available | | Not relevant, does not bioaccumulate | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | | |
| methanol | No data available | | | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|--|-------------------|---------|------------------|-----------------------------|--------|
| trisodium nitrilotriacetate | < 3 | | Method not given | No bioaccumulation expected | |
| sodium hydroxide | No data available | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | | | |
| methanol | No data available | | | | |

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

| Ingredient(s) | Adsorption coefficient Log K _{oc} | Desorption coefficient Log K _{oc} (des) | Method | Soil/sediment type | Evaluation |
|--|--|--|--------|--------------------|--|
| trisodium nitrilotriacetate | No data available | | | | Adsorption to solid soil phase is not expected |
| sodium hydroxide | No data available | | | | Mobile in soil |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | | | |
| methanol | 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:**

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: 1824

14.2 UN proper shipping name:

Sodium hydroxide solution

14.3 Transport hazard class(es):

Class: 8

Label(s): 8

14.4 Packing group: II

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

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
amphoteric surfactants, phosphonates

15 - 30%
< 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: MS1000919

Version: 02

Revision: 2014-02-06

Reason for revision:

This data sheet contains changes from the previous version in section(s):, 3, 8, 9, 11, 12, 16

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

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- R40 - Limited evidence of a carcinogenic effect.
- R36 - Irritating to eyes.
- R22 - Harmful if swallowed.
- R35 - Causes severe burns.
- R11 - Highly flammable.
- R36/38 - Irritating to eyes and skin.
- R39/23/24/25 - Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.
- H225 - Highly flammable liquid and vapour.
- H301 - Toxic if swallowed.
- H302 - Harmful if swallowed.
- H311 - Toxic in contact with skin.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- H319 - Causes serious eye irritation.
- H331 - Toxic if inhaled.
- H351 - Suspected of causing cancer if inhaled.
- H370 - Causes damage to organs (a,b,c) if inhaled.

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