



Suma Special L4

Revision: 2022-05-29

Version: 01.1

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

1.1 Product identifier

Trade name: Suma Special L4

UFI: 0MK3-R0V3-S008-M60N

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

Product use: Dish wash product.
For professional use only.

Uses advised against: Uses other than those identified are not recommended.

SWED - Sector-specific worker exposure description :

AISE_SWED_PW_4_2
AISE_SWED_PW_8b_1
AISE_SWED_PW_1_1
AISE_SWED_PW_4_1

1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, Maarssebroeksedijk 2, 3542DN Utrecht, The Netherlands

Contact details

Diversey Hygiene Sales Limited
Jamestown Road, Finglas, Dublin 11, Ireland
Tel: 01 8081808 (9am - 5pm Mon-Fri)
Email: dublin.orders@diversey.com

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible).
National Poisons Information Centre
Tel: 01 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)
Tel: 01 809 2566 (health care professionals).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin Corr. 1A (H314)
Eye Dam. 1 (H318)
Met. Corr. 1 (H290)

2.2 Label elements



Signal word: Danger.

Contains sodium hydroxide (Sodium Hydroxide)

Hazard statements:

H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.

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.

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

2.3 Other hazards

No other hazards known.

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

| Ingredient(s) | EC number | CAS number | REACH number | Classification | Notes | Weight percent |
|--|-----------|------------|------------------|---|-------|----------------|
| sodium hydroxide | 215-185-5 | 1310-73-2 | 01-2119457892-27 | Skin Corr. 1A (H314) Met. Corr. 1 (H290) | | 10-20 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | 223-267-7 | 3794-83-0 | [1] | Acute Tox. 4 (H302) Eye Irrit. 2 (H319) | | 1-3 |

Specific concentration limits

sodium hydroxide:

- Eye Dam. 1 (H318) >= 3% > Eye Irrit. 2 (H319) >= 0.5%
- Skin Corr. 1A (H314) >= 5% > Skin Corr. 1B (H314) >= 2% > Skin Irrit. 2 (H315) >= 0.5%

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

ATE, if available, are listed in section 11.

[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.

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

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

If unconscious place in recovery position and seek medical advice. Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

Inhalation:

Remove person to fresh air and keep comfortable for breathing. 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. Wash skin with plenty of lukewarm, gently flowing water. Take off immediately all contaminated clothing and wash it before reuse. Immediately call a POISON CENTRE, doctor or physician. If skin irritation occurs: Get medical advice or attention.

Eye contact:

Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE, doctor or physician.

Ingestion:

Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.

Self-protection of first aider:

Consider personal protective equipment as indicated in subsection 8.2.

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

No known effects or symptoms in normal use.

Skin contact:

Causes severe burns.

Eye contact:

Causes severe or permanent damage.

Ingestion:

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

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6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing. Wear eye/face protection. Wear suitable gloves.

6.2 Environmental precautions

Dilute with plenty of water. Do not allow to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up

Dyke to collect large liquid spills. Use neutralising agent. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Do not place spilled materials back into the original container. Collect in closed and suitable containers for disposal.

6.4 Reference to other sections

For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling****Measures to prevent fire and explosions:**

No special precautions required.

Measures required to protect the environment:

For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene:

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless advised by Diversey. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Use only with adequate ventilation. See chapter 8.2, Exposure controls / Personal protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local and national regulations. Store in a closed container. Keep only in original packaging.

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) | Long term value(s) | 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/DMEL oral exposure - Consumer (mg/kg bw)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|--|----------------------------|-------------------------------|---------------------------|------------------------------|
| sodium hydroxide | - | - | - | - |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | - | - | - | 2.4 |

DNEL/DMEL 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) |
|--|----------------------------|--|---------------------------|---|
| sodium hydroxide | 2 % | - | - | - |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | - | No data available | 48 |

DNEL/DMEL 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) |
|------------------|----------------------------|--|---------------------------|---|
| sodium hydroxide | 2 % | - | - | - |

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| | | | | |
|--|-------------------|---|-------------------|----|
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | - | No data available | 24 |
|--|-------------------|---|-------------------|----|

DNEL/DMEL inhalatory exposure - Worker (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|--|----------------------------|-------------------------------|---------------------------|------------------------------|
| sodium hydroxide | - | - | 1 | - |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | - | - | - | 16.9 |

DNEL/DMEL inhalatory exposure - Consumer (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|--|----------------------------|-------------------------------|---------------------------|------------------------------|
| sodium hydroxide | - | - | 1 | - |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | 10 | - | 10 | 4.2 |

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) |
|--|-----------------------------|------------------------------|---------------------|-------------------------------|
| sodium hydroxide | - | - | - | - |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | 0.096 | 0.01 | - | - |

Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m ³) |
|--|------------------------------|--------------------------|--------------|--------------------------|
| sodium hydroxide | - | - | - | - |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | 193 | 19.3 | 14 | - |

8.2 Exposure controls

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

Recommended safety measures for handling the undiluted product:

- Appropriate engineering controls:** 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.

REACH use scenarios considered for the undiluted product:

| | SWED - Sector-specific worker exposure description | LCS | PROC | Duration (min) | ERC |
|---|--|-----|---------|----------------|-------|
| Automatic application in a dedicated system | AISE_SWED_PW_4_2 | PW | PROC 4 | 480 | ERC8a |
| Automatic transfer and dilution | AISE_SWED_PW_8b_1 | PW | PROC 8b | 60 | ERC8b |

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: ≥ 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:

Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).

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 (% w/w): 0.2

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

REACH use scenarios considered for the diluted product:

| | SWED | LCS | PROC | Duration (min) | ERC |
|--|------------------|-----|--------|----------------|-------|
| Automatic application in a dedicated closed system | AISE_SWED_PW_1_1 | PW | PROC 1 | 480 | ERC8a |
| Automatic application in a dedicated system | AISE_SWED_PW_4_1 | PW | PROC 4 | 480 | ERC8a |

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

Physical state: Liquid
Colour: Clear , Yellow
Odour: Product specific
Odour threshold: Not applicable
Melting point/freezing point (°C): Not determined
Initial boiling point and boiling range (°C): Not determined

Method / remark
 Not relevant to classification of this product
 See substance data

Substance data, boiling point

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

Flammability (solid, gas): Not applicable to liquids
Flammability (liquid): Not flammable.
Flash point (°C): Not applicable.
Sustained combustion: Not applicable.
 (UN Manual of Tests and Criteria, section 32, L.2)
Lower and upper explosion limit/flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

Autoignition temperature: Not determined
Decomposition temperature: Not applicable.
pH: >= 11.5 (neat)
Dilution pH: > 11 (0.2 %)
Kinematic viscosity: Not determined
Solubility in / Miscibility with water: Fully miscible

Method / remark
 Not relevant to classification of this product
 ISO 4316
 ISO 4316

Substance data, solubility in water

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

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

Vapour pressure: Not determined

Method / remark
 See substance data

Substance data, vapour pressure

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

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Relative density: ≈ 1.26 (20 °C)
Relative vapour density: No data available.
Particle characteristics: No data available.

Method / remark

OECD 109 (EU A.3)
 Not relevant to classification of this product
 Not applicable to liquids.

9.2 Other information**9.2.1 Information with regard to physical hazard classes**

Explosive properties: Not explosive.
Oxidising properties: Not oxidising.
Corrosion to metals: Corrosive

Not explosive, based on substance properties
 Not oxidising, based on substance properties
 Weight of evidence

9.2.2 Other safety characteristics

No other relevant information 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

May be corrosive to metals. 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) | ATE (mg/kg) |
|--|------------------|-------------------|---------|-------------------|-------------------|-----------------|
| sodium hydroxide | | No data available | | | | Not established |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | LD ₅₀ | 2850 | Rat | OECD 401 (EU B.1) | | 120000 |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) | ATE (mg/kg) |
|--|------------------|---------------|---------|-------------------|-------------------|-----------------|
| sodium hydroxide | LD ₅₀ | 1350 | Rabbit | Method not given | | Not established |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | LD ₅₀ | > 5000 | Rabbit | OECD 402 (EU B.3) | | Not established |

Acute inhalative toxicity

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

Acute inhalative toxicity, continued

| Ingredient(s) | ATE - inhalation, dust (mg/l) | ATE - inhalation, mist (mg/l) | ATE - inhalation, vapour (mg/l) | ATE - inhalation, gas (mg/l) |
|--|-------------------------------|-------------------------------|---------------------------------|------------------------------|
| sodium hydroxide | Not established | Not established | Not established | Not established |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | Not established | Not established | Not established | Not established |

Irritation and corrosivity

Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|---------------|---------|-------------------|---------------|
| sodium hydroxide | Corrosive | Rabbit | Method not given | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | Mild irritant | Rabbit | OECD 404 (EU B.4) | 4 hour(s) |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|-----------|---------|-------------------|---------------|
| sodium hydroxide | Corrosive | Rabbit | Method not given | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | Irritant | Rabbit | OECD 405 (EU B.5) | |

Respiratory tract irritation and corrosivity

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

Sensitisation

Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|--|-------------------|---------|---------------------------|-------------------|
| sodium hydroxide | Not sensitising | | Human repeated patch test | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|-------------------|---------|--------|---------------|
| sodium hydroxide | No data available | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | 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) |
|--|---|---|---|---------------------------------------|
| 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 evidence for mutagenicity, negative test results | draft OECD 487 | No evidence of genotoxicity, negative test results | OECD 478 |

Carcinogenicity

| Ingredient(s) | Effect |
|--|--|
| sodium hydroxide | No evidence for carcinogenicity, weight-of-evidence |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No evidence for carcinogenicity, negative test results |

Toxicity for reproduction

| Ingredient(s) | Endpoint | Specific effect | Value (mg/kg bw/d) | Species | Method | Exposure time | Remarks and other effects reported |
|--|----------|-----------------|--------------------|---------|---------------------------|---------------|--|
| sodium hydroxide | | | No data available | | | | No evidence for developmental toxicity No evidence for reproductive toxicity |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | NOAEL | | 112 | Rat | OECD 416, (EU B.35), oral | | 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 |
|--|----------|--------------------|---------|--------------------|----------------------|--------------------------------------|
| sodium hydroxide | | No data available | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | NOAEL | 41 | Rat | OECD 408 (EU B.26) | 90 | No effects observed |

Sub-chronic dermal toxicity

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure | Specific effects and organs |
|---------------|----------|-------|---------|--------|----------|-----------------------------|
|---------------|----------|-------|---------|--------|----------|-----------------------------|

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| | (mg/kg bw/d) | time (days) | affected |
|--|-------------------|-------------|----------|
| sodium hydroxide | No data available | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | 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 |
|--|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| sodium hydroxide | | No data available | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | 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 |
|--|----------------|----------|--------------------|---------|--------|---------------|--------------------------------------|--------|
| sodium hydroxide | | | No data available | | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | | No data available | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|--|-------------------|
| sodium hydroxide | No data available |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|--|-------------------|
| sodium hydroxide | No data available |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available |

Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3.

Potential adverse health effects and symptoms

Effects and symptoms related to the product, if any, are listed in subsection 4.2.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Endocrine disrupting properties - Human data, if available:

11.2.2 Other information

No other relevant information available.

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) |
|--|------------------|--------------|------------------------|------------------|-------------------|
| sodium hydroxide | LC ₅₀ | 35 | <i>Various species</i> | Method not given | 96 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | LC ₅₀ | 195 | | | |

Aquatic short-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--|------------------|-------------------|-------------------------|------------------|-------------------|
| sodium hydroxide | EC ₅₀ | 40.4 | <i>Ceriodaphnia sp.</i> | Method not given | 48 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | |

Aquatic short-term toxicity - algae

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| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--|------------------|-------------------|-----------------------------------|------------------|-------------------|
| sodium hydroxide | EC ₅₀ | 22 | <i>Photobacterium phosphoreum</i> | Method not given | 0.25 |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | |

Aquatic short-term toxicity - marine species

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

Impact on sewage plants - toxicity to bacteria

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

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

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

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|--|----------|-------------------|----------------------|--------|---------------|------------------|
| sodium hydroxide | | No data available | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | NOEC | 6.75 | <i>Daphnia magna</i> | | 28 day(s) | |

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

| Ingredient(s) | Endpoint | Value (mg/kg dw sediment) | Species | Method | Exposure time (days) | Effects observed |
|--|----------|---------------------------|---------|--------|----------------------|------------------|
| sodium hydroxide | | No data available | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | | No data available | | | | |

Terrestrial toxicity

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

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| sodium hydroxide | | No data available | | | | |

Terrestrial toxicity - plants, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| sodium hydroxide | | No data available | | | | |

Terrestrial toxicity - birds, if available:

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure time (days) | Effects observed |
|------------------|----------|-------------------|---------|--------|----------------------|------------------|
| sodium hydroxide | | No data available | | | | |

Terrestrial toxicity - beneficial insects, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|---------------|----------|-----------------------|---------|--------|----------------------|------------------|
| | | | | | | |

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|------------------|--|-------------------|--|--|--|--|
| sodium hydroxide | | No data available | | | | |
|------------------|--|-------------------|--|--|--|--|

Terrestrial toxicity - soil bacteria, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| sodium hydroxide | | No data 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:

| Ingredient(s) | Half-life time in fresh water | Method | Evaluation | Remark |
|------------------|-------------------------------|--------|------------|--------|
| sodium hydroxide | No data available | | | |

Abiotic degradation - other processes, if available:

| Ingredient(s) | Type | Half-life time | Method | Evaluation | Remark |
|------------------|------|-------------------|--------|------------|--------|
| sodium hydroxide | | No data available | | | |

Biodegradation

Ready biodegradability - aerobic conditions

| Ingredient(s) | Inoculum | Analytical method | DT ₅₀ | Method | Evaluation |
|--|--------------------------|-------------------|------------------|-------------|--------------------------------------|
| sodium hydroxide | | | | | Not applicable (inorganic substance) |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | Activated sludge, aerobe | | | Read across | Not readily biodegradable. |

Ready biodegradability - anaerobic and marine conditions, if available:

| Ingredient(s) | Medium & Type | Analytical method | DT ₅₀ | Method | Evaluation |
|------------------|---------------|-------------------|------------------|--------|-------------------|
| sodium hydroxide | | | | | No data available |

Degradation in relevant environmental compartments, if available:

| Ingredient(s) | Medium & Type | Analytical method | DT ₅₀ | Method | Evaluation |
|------------------|---------------|-------------------|------------------|--------|-------------------|
| sodium hydroxide | | | | | No data available |

12.3 Bioaccumulative potentialPartition coefficient n-octanol/water (log K_{ow})

| Ingredient(s) | Value | Method | Evaluation | Remark |
|--|-------------------|--------|--------------------------------------|--------|
| sodium hydroxide | No data available | | Not relevant, does not bioaccumulate | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | No data available | | | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|--|-------------------|---------|--------|------------|--------|
| sodium hydroxide | No data available | | | | |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | 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 |
|--|--|--|--------|--------------------|----------------|
| sodium hydroxide | No data available | | | | Mobile in soil |
| tetrasodium (1-hydroxy ethylidene)bisphosphonate | 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.

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12.6 Endocrine disrupting properties

Endocrine disrupting properties - Environmental effects, if available:

12.7 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**Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)**

14.1 UN number: 1824

14.2 UN proper shipping name:

Sodium hydroxide solution

14.3 Transport hazard class(es):

Transport hazard class (and subsidiary risks): 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 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****EU regulations:**

- Regulation (EC) No. 1907/2006 - REACH
- Regulation (EC) No 1272/2008 - CLP
- Regulation (EC) No. 648/2004 - Detergents regulation
- substances identified as having endocrine disrupting properties in accordance with the criteria set out in Delegated Regulation (EU) 2017/2100 or Regulation (EU) 2018/605
- Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
- International Maritime Dangerous Goods (IMDG) Code

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

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Ingredients according to EC Detergents Regulation 648/2004

| | |
|------------------|----------|
| polycarboxylates | 5 - 15 % |
| phosphonates | < 5 % |

Seveso - Classification: Not classified

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out on the mixture

SECTION 16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

SDS code: MS1003751

Version: 01.1

Revision: 2022-05-29

Reason for revision:

Overall design adjusted in accordance with Amendment 2020/878, Annex II of Regulation (EC) No 1907/2006, This data sheet contains changes from the previous version in section(s): 1, 2, 3, 4, 5, 6, 7, 8, 15, 16

Classification procedure

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

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

- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.

Abbreviations and acronyms:

- AISE - The international Association for Soaps, Detergents and Maintenance Products
- ATE - Acute Toxicity Estimate
- DNEL - Derived No Effect Limit
- EC50 - effective concentration, 50%
- ERC - Environmental release categories
- EUH - CLP Specific hazard statement
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- LCS - Life cycle stage
- LD50 - Lethal Dose, 50% / Median Lethal dose
- NOAEL - No observed adverse effect level
- NOEL - No observed effect level
- OECD - Organisation for Economic Cooperation and Development
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- PROC - Process categories
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative

End of Safety Data Sheet