

Suma Dip K1

Revision: 2014-10-08

Version: 05.0

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

1.1 Product identifier

Trade name: Suma Dip K1

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

Identified uses:

For professional use only.

AISE-P201 - Dishwash product. Manual process

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

1.3 Details of the supplier of the safety data sheet

Diversey 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.

EUH031

Skin Corr. 1B (H314)

Aquatic Acute 1 (H400)

Aquatic Chronic 2 (H411)

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

Indication of danger

C - Corrosive

N - Dangerous for the environment

Risk phrases:

R31 - Contact with acids liberates toxic gas.

R34 - Causes burns.

R50 - Very toxic to aquatic organisms.

2.2 Label elements



Signal word: Danger

Contains disodium/dipotassium metasilicate (Sodium/Potassium Metasilicate), sodium hypochlorite (Sodium Hypochlorite).

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Hazard statements:

EUH031 - Contact with acids liberates toxic gas.
 H314 - Causes severe skin burns and eye damage.
 H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P260 - Do not breathe vapours.
 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) | C;R34 Xi;R37 | | 10-20 |
| sodium hypochlorite | 231-668-3 | 7681-52-9 | 01-2119488154-34 | Skin Corr. 1B (H314) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) EUH031 | R31 C;R34 Xi;R37 N;R50 | | 3-10 |
| potassium hydroxide | 215-181-3 | 1310-58-3 | 01-2119487136-33 | Met. Corr. 1 (H290) Acute Tox. 4 (H302) Skin Corr. 1A (H314) | Xn;R22 C;R35 | | 0.1-1 |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | 931-292-6 | - | 01-2119490061-47 | Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411) | Xn;R22 Xi;R38-41 N;R50 | | 0.1-1 |
| sodium hydroxide | 215-185-5 | 1310-73-2 | 01-2119457892-27 | Met. Corr. 1 (H290) Skin Corr. 1A (H314) | 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****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. 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:**

May cause bronchospasm in chlorine sensitive individuals.

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**6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Do not breathe dust or vapour. In case of an incident in a confined area wear suitable respiratory protection. Wear suitable protective clothing, gloves and eye/face protection.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Dilute with plenty of water. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

6.3 Methods and material for containment and cleaning up

Use neutralising agent. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Ensure adequate ventilation.

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. Use personal protective equipment as required. Avoid contact with skin and eyes. Do not breathe vapours. 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) |
|---------------------|-------------------------|--------------------------|
| potassium hydroxide | | 2 mg/m ³ |
| 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 |
| sodium hypochlorite | No data available | No data available | No data available | 0.26 |
| potassium hydroxide | No data available | No data available | No data available | No data available |

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|--|-------------------|-------------------|-------------------|-------------------|
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | No data available | No data available | No data available | 0.44 |
| 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 |
| sodium hypochlorite | No data available | No data available | 0.5 % | No data available |
| potassium hydroxide | No data available | No data available | No data available | No data available |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | No data available | No data available | 0.27 % | 11 |
| 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 |
| sodium hypochlorite | No data available | No data available | 0.5 % | No data available |
| potassium hydroxide | No data available | No data available | No data available | No data available |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | No data available | No data available | 0.27 % | 5.5 |
| sodium hydroxide | 2 % | No data available | No data available | No data available |

DNEL inhalatory exposure - Worker (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|--|----------------------------|-------------------------------|---------------------------|------------------------------|
| disodium/dipotassium metasilicate | No data available | No data available | No data available | No data available |
| sodium hypochlorite | 3.1 | 3.1 | 1.55 | 1.55 |
| potassium hydroxide | No data available | No data available | 1 | No data available |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | No data available | No data available | No data available | 15.5 |
| 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 |
| sodium hypochlorite | 3.1 | 3.1 | 1.55 | 1.55 |
| potassium hydroxide | No data available | No data available | 1 | No data available |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | No data available | No data available | No data available | 3.825 |
| 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 |
| sodium hypochlorite | 0.00021 | 0.000042 | 0.00026 | 0.03 |
| potassium hydroxide | No data available | No data available | No data available | No data available |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | 0.0335 | 0.00335 | 0.0335 | 24 |
| 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 |
| sodium hypochlorite | No data available | No data available | No data available | 0.00026 |
| potassium hydroxide | No data available | No data available | No data available | No data available |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | 5.24 | 0.524 | 1.02 | No data available |
| 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).

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|---|--|
| 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. |
| Respiratory protection: | Respiratory protection is not normally required. However, inhalation of vapour, spray, gas or aerosols should be avoided. |
| Environmental exposure controls: | Should not reach sewage water or drainage ditch undiluted. |

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (%): 1.6

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: Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.
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, Pale, Yellow
Odour: Chlorine
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) |
|--|-------------------|------------------|----------------------------|
| disodium/dipotassium metasilicate | No data available | | |
| sodium hypochlorite | 96-120 | Method not given | 1013 |
| potassium hydroxide | 140 | Method not given | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | > 100 | Method not given | |
| 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

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| Ingredient(s) | Value (Pa) | Method | Temperature (°C) |
|--|-------------------|------------------|------------------|
| disodium/dipotassium metasilicate | No data available | | |
| sodium hypochlorite | 1700-2000 | Method not given | 20 |
| potassium hydroxide | 2300 | Method not given | 20 |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | < 10 | Method not given | 25 |
| sodium hydroxide | < 1330 | Method not given | 20 |

Method / remark

Vapour density: Not determined

Relative density: 1.22 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 | | |
| sodium hypochlorite | No data available | | |
| potassium hydroxide | No data available | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | 409.5 Soluble | Method not given | 20 |
| 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:

| Ingredient(s) | Value | Method | Temperature (°C) |
|---------------------|------------|------------------|------------------|
| sodium hypochlorite | 7.53 (pKa) | Method not given | |

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 releasing toxic chlorine gas. Keep away from acids.

10.6 Hazardous decomposition products

Chlorine.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

No 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) |
|---------------|----------|---------------|---------|--------|-------------------|
|---------------|----------|---------------|---------|--------|-------------------|

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|--|------------------|-------------------|-----|-------------------|
| disodium/dipotassium metasilicate | | No data available | | |
| sodium hypochlorite | LD ₅₀ | > 1100 | Rat | Method not given |
| potassium hydroxide | LD ₅₀ | 333 | Rat | OECD 425 |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | LD ₅₀ | > 300 - 2000 | 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 | | | |
| sodium hypochlorite | LD ₅₀ | > 20000 | Rabbit | Method not given | |
| potassium hydroxide | | No data available | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | LD ₅₀ | > 5000 | Rat | OECD 402 (EU B.3) | |
| 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 | | | |
| sodium hypochlorite | LC ₀ | > 10.5 (vapour) | Rat | OECD 403 (EU B.2) | 1 |
| potassium hydroxide | | No data available | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | | No data available | | | |
| 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 | | | |
| sodium hypochlorite | Corrosive | Rabbit | Method not given | |
| potassium hydroxide | Corrosive | Rabbit | Draize test | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | Irritant | Rabbit | OECD 404 (EU B.4) | |
| sodium hydroxide | Corrosive | Rabbit | Method not given | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|-------------------|---------|-------------------|---------------|
| disodium/dipotassium metasilicate | No data available | | | |
| sodium hypochlorite | Severe damage | Rabbit | Method not given | |
| potassium hydroxide | Corrosive | | Method not given | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | Severe damage | Rabbit | OECD 405 (EU B.5) | |
| sodium hydroxide | Corrosive | Rabbit | Method not given | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|---------------------------------|---------|--------|---------------|
| disodium/dipotassium metasilicate | No data available | | | |
| sodium hypochlorite | Irritating to respiratory tract | | | |
| potassium hydroxide | No data available | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | 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 | | | |
| sodium hypochlorite | Not sensitising | Guinea pig | Method not given | |
| potassium hydroxide | Not sensitising | Guinea pig | Method not given | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | 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 |
|---------------|--------|---------|--------|---------------|
|---------------|--------|---------|--------|---------------|

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|--|-------------------|--|--|--|
| disodium/dipotassium metasilicate | No data available | | | |
| sodium hypochlorite | No data available | | | |
| potassium hydroxide | No data available | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | 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 | |
| sodium hypochlorite | No evidence for mutagenicity | OECD 471 (EU B.12/13) | No evidence for mutagenicity, negative test results | Method not given |
| potassium hydroxide | No evidence for mutagenicity, negative test results | Method not given | No data available | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | No evidence for mutagenicity, negative test results | OECD 471 (EU B.12/13) | No data available | |
| 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 |
| sodium hypochlorite | No evidence for carcinogenicity, negative test results |
| potassium hydroxide | No evidence for carcinogenicity, negative test results |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | No evidence for carcinogenicity, negative test results |
| 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 | | | | |
| sodium hypochlorite | NOAEL | Developmental toxicity | 5 (Cl) | Rat | Not known | | No evidence for reproductive toxicity |
| potassium hydroxide | | | No data available | | | | No evidence for reproductive toxicity |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | NOAEL | Teratogenic effects | 25 | Rat | Non guideline test | | |
| 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 | | | | |
| sodium hypochlorite | NOAEL | 50 | Rat | Method not given | 90 | |
| potassium hydroxide | | No data available | | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | NOAEL | 13 | | OECD 422, oral | | |
| 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 | | | | |
| sodium hypochlorite | | No data available | | | | |
| potassium hydroxide | | No data available | | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | | 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 |
|---------------|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| | | | | | | |

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|--|--|-------------------|--|--|--|--|
| disodium/dipotassium metasilicate | | No data available | | | | |
| sodium hypochlorite | | No data available | | | | |
| potassium hydroxide | | No data available | | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | | No data available | | | | |
| 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 | | | | | |
| sodium hypochlorite | | | No data available | | | | | |
| potassium hydroxide | | | No data available | | | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | | | No data available | | | | | |
| sodium hydroxide | | | No data available | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|--|-------------------|
| disodium/dipotassium metasilicate | No data available |
| sodium hypochlorite | No data available |
| potassium hydroxide | No data available |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | No data available |
| sodium hydroxide | No data available |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|--|-------------------|
| disodium/dipotassium metasilicate | No data available |
| sodium hypochlorite | No data available |
| potassium hydroxide | No data available |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | 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 | | | |
| sodium hypochlorite | LC ₅₀ | 0.06 | Various species | Method not given | 96 |
| potassium hydroxide | LC ₅₀ | 80 | Various species | Method not given | 24 |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | LC ₅₀ | > 2.67 - 3.46 | Fish | OECD 203, static | 96 |
| sodium hydroxide | LC ₅₀ | 35 | Various species | 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 | | | |
| sodium hypochlorite | EC ₅₀ | 0.026 | Not specified | Method not given | 48 |

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| | | | | | |
|--|------------------|-----------|-----------------------------|------------------|----|
| potassium hydroxide | EC ₅₀ | 30 - 1000 | <i>Daphnia magna Straus</i> | Method not given | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | EC ₅₀ | 3.1 | <i>Daphnia magna Straus</i> | OECD 202 | 48 |
| 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 | | | |
| sodium hypochlorite | NOEC | 0.0021 | <i>Not specified</i> | Method not given | 168 |
| potassium hydroxide | | No data available | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | EC ₅₀ | 0.1428 | <i>Not specified</i> | Method not given | 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 | | | |
| sodium hypochlorite | | No data available | | | |
| potassium hydroxide | | No data available | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | | 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 | | | |
| sodium hypochlorite | | 0.375 | <i>Activated sludge</i> | Method not given | |
| potassium hydroxide | | No data available | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | EC ₁₀ | > 24 | <i>Bacteria</i> | Non guideline test | 18 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 | | | | |
| sodium hypochlorite | NOEC | 0.04 | <i>Menidia pelinsulae</i> | Method not given | 96 hour(s) | |
| potassium hydroxide | | No data available | | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | NOEC | 0.42 | <i>Not specified</i> | | 302 day(s) | |
| 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 | | | | |
| sodium hypochlorite | | No data available | | | | |
| potassium hydroxide | | No data available | | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | NOEC | 0.7 | <i>Daphnia magna</i> | Method not given | 21 day(s) | |
| 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 |
|---------------|----------|---------------------------|---------|--------|----------------------|------------------|
| | | | | | | |

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| | | | | | |
|--|--|-------------------|--|--|--|
| disodium/dipotassium metasilicate | | No data available | | | |
| sodium hypochlorite | | No data available | | | |
| potassium hydroxide | | No data available | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | | 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 hypochlorite | 115 day(s) | Indirect photo-oxidation | | |
| 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 |
| sodium hypochlorite | | | | | Not applicable (inorganic substance) |
| potassium hydroxide | | | | | Not applicable (inorganic substance) |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | | CO ₂ production | 90% in 28 day(s) | OECD 301B | Readily biodegradable |
| sodium hydroxide | | | | | Not applicable (inorganic substance) |

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

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

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

| Ingredient(s) | Value | Method | Evaluation | Remark |
|--|-------------------|--------------------|--------------------------------------|--------|
| disodium/dipotassium metasilicate | No data available | | | |
| sodium hypochlorite | -3.42 | Method not given | No bioaccumulation expected | |
| potassium hydroxide | No data available | | Not relevant, does not bioaccumulate | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | 0.93 | (EC) 440/2008, A.8 | 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 | | | | |
| sodium hypochlorite | No data available | | | | |
| potassium hydroxide | No data available | | | | |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | No data available | | | | |
| sodium hydroxide | No data available | | | | |

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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 | | | | |
| sodium hypochlorite | 1.12 | | | | High potential for mobility in soil |
| potassium hydroxide | No data available | | | | Low potential for adsorption to soil |
| Amines, C12-14 (even numbered)-alkyldimethyl, N-oxides | No data available | | | | Low mobility in soil |
| 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:

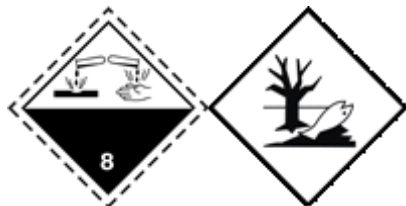
20 01 15* - alkalines.

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 , hypochlorite)

14.3 Transport hazard class(es):**Class:** 8**Label(s):** 8**14.4 Packing group:** III**14.5 Environmental hazards:****Environmentally hazardous:** Yes**Marine pollutant:** Yes**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.

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Ingredients according to EC Detergents Regulation 648/2004

chlorine-based bleaching agents, non-ionic surfactants, phosphates

< 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: MSDS3415**Version:** 05.0**Revision:** 2014-10-08**Reason for revision:**

Overall design adjusted in accordance with Amendment 453/2010, Annex II of Regulation (EC) No 1907/2006

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.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H335 - May cause respiratory irritation.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.
- H411 - Toxic to aquatic life with long lasting effects.
- EUH031 - Contact with acids liberates toxic gas.
- R22 - Harmful if swallowed.
- R31 - Contact with acids liberates toxic gas.
- R34 - Causes burns.
- R35 - Causes severe burns.
- R37 - Irritating to respiratory system.
- R38 - Irritating to skin.
- R41 - Risk of serious damage to eyes.
- R50 - Very toxic to aquatic organisms.

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