



Domestos Professional Citrus Fresh

Revision: 2023-10-19

Version: 01.1

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

1.1 Product identifier

Trade name: Domestos Professional Citrus Fresh
Domestos is a registered trade mark and is used under licence of Unilever

UFI: N93K-21XU-C00P-JCSQ

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

Product use: Surface disinfectant.
Hard surface cleaner.
for general surface disinfection
For professional use only.

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

SWED - Sector-specific worker exposure description :
AISE_SWED_PW_19_2

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: customerservice.uk@diversey.com

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible)
For medical or environmental emergency only:
call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin corrosion, Category 1B (H314)
Serious eye damage, Category 1 (H318)
Acute aquatic toxicity, Category 1 (H400)
Chronic aquatic toxicity, Category 2 (H411)
Corrosive to metals, Category 1 (H290)

2.2 Label elements



Signal word: Danger.

Contains sodium hypochlorite (active chlorine) (Sodium Hypochlorite), amines, C12-18-alkyldimethyl, N-oxides (Cocamine Oxide)

Hazard statements:

H290 - May be corrosive to metals.
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.

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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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

| Ingredient(s) | EC number | CAS number | REACH number | Classification | Notes | Weight percent |
|--|-----------|------------|----------------------|--|-------|----------------|
| sodium hypochlorite (active chlorine) | 231-668-3 | 7681-52-9 | [6] | EUH031 Skin corrosion, Category 1B (H314) Serious eye damage, Category 1 (H318) Acute aquatic toxicity, Category 1 M=10 (H400) Chronic aquatic toxicity, Category 1 M=1 (H410) Corrosive to metals, Category 1 (H290) | | 3-10 |
| amines, C12-18-alkyldimethyl, N-oxides | 931-341-1 | 68955-55-5 | 01-211948939 6-21 | Acute toxicity - Oral, Category 4 (H302) Skin irritation, Category 2 (H315) Serious eye damage, Category 1 (H318) Acute aquatic toxicity, Category 1 M=1 (H400) Chronic aquatic toxicity, Category 2 (H411) | | 1-3 |
| sodium hydroxide | 215-185-5 | 1310-73-2 | 01-211945789 2-27 | Skin corrosion, Category 1A (H314) Corrosive to metals, Category 1 (H290) | | 0.1-1 |

Specific concentration limits

sodium hydroxide:

- Serious eye damage, Category 1 (H318) >= 2% > Eye irritation, Category 2 (H319) >= 0.5%
- Skin corrosion, Category 1A (H314) >= 5% > Skin corrosion, Category 1B (H314) >= 2% > Skin irritation, Category 2 (H315) >= 0.5%

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

ATE, if available, are listed in section 11.

[6] Exempted: biocidal active. See Article 15(2) of Regulation (EC) No 1907/2006.

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. Take off immediately all contaminated clothing and wash it before reuse. Immediately call a POISON CENTRE, doctor or physician.

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:

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

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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. 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. Do not allow to enter the ground/soil. 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

Ensure adequate ventilation. Dyke to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders). 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. Do not breathe vapours. 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. Keep from freezing. For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits

Air limit values, if available:

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

Biological limit values, if available:

Recommended monitoring procedures, if available:

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

DNEL/DMEL and PNEC values

Human exposure

DNEL/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 hypochlorite (active chlorine) | - | - | - | 0.26 |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | No data available | No data available | No data available |
| sodium hydroxide | - | - | - | - |

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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 hypochlorite (active chlorine) | - | - | 0.5 % | - |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | No data available | No data available | No data available |
| sodium hydroxide | 2 % | - | - | - |

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 hypochlorite (active chlorine) | - | - | 0.5 % | - |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | No data available | No data available | No data available |
| sodium hydroxide | 2 % | - | - | - |

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 hypochlorite (active chlorine) | 3.1 | 3.1 | 1.55 | 1.55 |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | No data available | No data available | No data available |
| sodium hydroxide | - | - | 1 | - |

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 hypochlorite (active chlorine) | 3.1 | 3.1 | 1.55 | 1.55 |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | No data available | No data available | No data available |
| sodium hydroxide | - | - | 1 | - |

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 hypochlorite (active chlorine) | 0.00021 | 0.00042 | 0.00026 | 0.03 |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | No data available | No data available | No data available |
| sodium hydroxide | - | - | - | - |

Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m ³) |
|--|------------------------------|--------------------------|-------------------|--------------------------|
| sodium hypochlorite (active chlorine) | - | - | - | - |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | No data available | No data available | No data available |
| sodium hydroxide | - | - | - | - |

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: No special requirements under normal use conditions.
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 |
|--------------------|--|-----|---------|----------------|-------|
| Manual application | AISE_SWED_PW_19_2 | PW | PROC 19 | 480 | ERC8a |

Personal protective equipment

Eye / face protection:

Safety glasses or goggles (EN 16321 / 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. 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.

Hand protection:

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

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| | |
|---|--|
| 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 (EN 14605). |
| Respiratory protection: | Respiratory protection is not normally required. However, inhalation of vapour, spray, gas or aerosols should be avoided. |
| Environmental exposure controls: | Should not reach sewage water or drainage ditch undiluted or unneutralised. |

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Information in this section refers to the product, unless it is specifically stated that substance data is listed

| | |
|---|--|
| Physical state: Liquid | Method / remark |
| Colour: Clear , Yellow | |
| Odour: Slightly perfumed | |
| Odour threshold: Not applicable | |
| Melting point/freezing point (°C): Not determined | Not relevant to classification of this product |
| Initial boiling point and boiling range (°C): Not determined | See substance data |

Substance data, boiling point

| Ingredient(s) | Value (°C) | Method | Atmospheric pressure (hPa) |
|--|-----------------------------------|------------------|----------------------------|
| sodium hypochlorite (active chlorine) | Product decomposes before boiling | Method not given | 1013 |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | | |
| sodium hydroxide | > 990 | Method not given | |

Method / remark

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

Substance data, flammability or explosive limits, if available:

| Ingredient(s) | Lower limit (% vol) | Upper limit (% vol) |
|---------------------------------------|---------------------|---------------------|
| sodium hypochlorite (active chlorine) | - | - |

Method / remark

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

ISO 4316
Refer Test Method Notes

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|--|-------------------|------------------|------------------|
| sodium hypochlorite (active chlorine) | Soluble | | |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | | |
| sodium hydroxide | 1000 | Method not given | 20 |

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 hypochlorite (active chlorine) | Negligible | | |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | | |
| sodium hydroxide | < 1330 | Method not given | 20 |

| | |
|---|--|
| Relative density: ≈ 1.08 (20 °C) | |
| Relative vapour density: -. | |

Method / remark
OECD 109 (EU A.3)
Not relevant to classification of this product

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Particle characteristics: No data available.

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

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. Reacts with acids releasing toxic chlorine gas.

10.6 Hazardous decomposition products

Chlorine.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

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 hypochlorite (active chlorine) | LD ₅₀ | 1100 | Rat | OECD 401 (EU B.1) | 90 | Not established |
| amines, C12-18-alkyldimethyl, N-oxides | LD ₅₀ | 846 | Rat | OECD 401 (EU B.1) | | 846 |
| sodium hydroxide | | No data available | | | | Not established |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) | ATE (mg/kg) |
|--|------------------|-------------------|---------|-------------------|-------------------|-----------------|
| sodium hypochlorite (active chlorine) | LD ₅₀ | > 20000 | Rabbit | OECD 402 (EU B.3) | | Not established |
| amines, C12-18-alkyldimethyl, N-oxides | | No data available | | | | Not established |
| sodium hydroxide | LD ₅₀ | 1350 | Rabbit | Method not given | | Not established |

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--|------------------|-------------------|---------|-------------------|-------------------|
| sodium hypochlorite (active chlorine) | LC ₅₀ | > 10.5 (vapour) | Rat | OECD 403 (EU B.2) | 1 |
| amines, C12-18-alkyldimethyl, N-oxides | | No data available | | | |
| sodium hydroxide | | No data available | | | |

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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 hypochlorite (active chlorine) | Not established | Not established | Not established | Not established |
| amines, C12-18-alkyldimethyl, N-oxides | Not established | Not established | Not established | Not established |
| sodium hydroxide | Not established | Not established | Not established | Not established |

Irritation and corrosivity

Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|-----------|---------|-------------------|---------------|
| sodium hypochlorite (active chlorine) | Corrosive | Rabbit | OECD 404 (EU B.4) | |
| amines, C12-18-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 |
|--|---------------|---------|-------------------|---------------|
| sodium hypochlorite (active chlorine) | Severe damage | Rabbit | OECD 405 (EU B.5) | |
| amines, C12-18-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 |
|--|---------------------------------|---------|--------|---------------|
| sodium hypochlorite (active chlorine) | Irritating to respiratory tract | | | |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | | | |
| sodium hydroxide | No data available | | | |

Sensitisation

Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|--|-------------------|------------|----------------------------------|-------------------|
| sodium hypochlorite (active chlorine) | Not sensitising | Guinea pig | OECD 406 (EU B.6) / Buehler test | |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | | | |
| sodium hydroxide | Not sensitising | | Human repeated patch test | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|-------------------|---------|--------|---------------|
| sodium hypochlorite (active chlorine) | Not sensitising | | | |
| amines, C12-18-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) |
|--|---|---|---|---------------------------------------|
| sodium hypochlorite (active chlorine) | No evidence for mutagenicity | OECD 471 (EU B.12/13) | No evidence for mutagenicity, negative test results | OECD 474 (EU B.12) |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | | 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 |
|--|--|
| sodium hypochlorite (active chlorine) | No evidence for carcinogenicity, negative test results |
| amines, C12-18-alkyldimethyl, N-oxides | No data available |
| 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 |
|---------------------------------------|----------|---|--------------------|---------|---|---------------|---------------------------------------|
| sodium hypochlorite (active chlorine) | NOAEL | Developmental toxicity Impaired fertility | 5 (Cl) | Rat | OECD 414 (EU B.31), oral OECD 415 (EU B.34), oral | | No evidence for reproductive toxicity |
| amines, | | | No data | | | | |

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| | | | | | | | |
|--------------------------------|--|--|-------------------|--|--|--|--|
| C12-18-alkyldimethyl, N-oxides | | | available | | | | |
| 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 |
|--|----------|--------------------|---------|--------------------|----------------------|--------------------------------------|
| sodium hypochlorite (active chlorine) | NOAEL | 50 | Rat | OECD 408 (EU B.26) | 90 | |
| amines, C12-18-alkyldimethyl, N-oxides | | No data available | | | | |
| sodium hydroxide | | No data available | | | | |

Sub-chronic dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg bw/d) | Species | Method | Exposure time (days) | Specific effects and organs affected |
|--|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| sodium hypochlorite (active chlorine) | | No data available | | | | |
| amines, C12-18-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 |
|--|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| sodium hypochlorite (active chlorine) | | No data available | | | | |
| amines, C12-18-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 |
|--|----------------|----------|--------------------|---------|--------|---------------|--------------------------------------|--------|
| sodium hypochlorite (active chlorine) | | | No data available | | | | | |
| amines, C12-18-alkyldimethyl, N-oxides | | | No data available | | | | | |
| sodium hydroxide | | | No data available | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|--|-------------------|
| sodium hypochlorite (active chlorine) | Not applicable |
| amines, C12-18-alkyldimethyl, N-oxides | No data available |
| sodium hydroxide | No data available |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|--|-------------------|
| sodium hypochlorite (active chlorine) | Not applicable |
| amines, C12-18-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.

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.

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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 hypochlorite (active chlorine) | LC ₅₀ | 0.06 | <i>Oncorhynchus mykiss</i> | Method not given | 96 |
| amines, C12-18-alkyldimethyl, N-oxides | | No data available | | | |
| 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) |
|--|------------------|-------------------|---------------------------|-------------------|-------------------|
| sodium hypochlorite (active chlorine) | EC ₅₀ | 0.035 | <i>Ceriodaphnia dubia</i> | OECD 202 (EU C.2) | 48 |
| amines, C12-18-alkyldimethyl, N-oxides | | No data available | | | |
| 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) |
|--|------------------|-------------------|-----------------------------------|------------------|-------------------|
| sodium hypochlorite (active chlorine) | NOEC | 0.0021 | Not specified | Method not given | 168 |
| amines, C12-18-alkyldimethyl, N-oxides | | No data available | | | |
| 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) |
|--|------------------|-------------------|------------------------------|------------------|----------------------|
| sodium hypochlorite (active chlorine) | EC ₅₀ | 0.026 | <i>Crassostrea virginica</i> | Method not given | 2 |
| amines, C12-18-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 |
|--|----------|-------------------|------------------|------------------|---------------|
| sodium hypochlorite (active chlorine) | | 0.375 | Activated sludge | Method not given | |
| amines, C12-18-alkyldimethyl, N-oxides | | No data available | | | |
| 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 |
|--|----------|-------------------|---------------------------|------------------|---------------|------------------|
| sodium hypochlorite (active chlorine) | NOEC | 0.04 | <i>Menidia pelinsulae</i> | Method not given | 96 hour(s) | |
| amines, C12-18-alkyldimethyl, N-oxides | | No data available | | | | |
| sodium hydroxide | | No data available | | | | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|---------------------------------------|----------|--------------|------------------------------|------------------|---------------|------------------|
| sodium hypochlorite (active chlorine) | NOEC | 0.007 | <i>Crassostrea virginica</i> | Method not given | 15 day(s) | |

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| | | | | | | |
|--|--|-------------------|--|--|--|--|
| amines, C12-18-alkyldimethyl, N-oxides | | No data available | | | | |
| sodium hydroxide | | No data available | | | | |

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

| Ingredient(s) | Endpoint | Value (mg/kg dw sediment) | Species | Method | Exposure time (days) | Effects observed |
|--|----------|---------------------------|---------|--------|----------------------|------------------|
| sodium hypochlorite (active chlorine) | | No data available | | | | |
| amines, C12-18-alkyldimethyl, N-oxides | | No data available | | | | |
| sodium hydroxide | | 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 hypochlorite (active chlorine) | | No data available | | | | |
| 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 hypochlorite (active chlorine) | | No data available | | | | |
| sodium hydroxide | | No data available | | | | |

Terrestrial toxicity - birds, if available:

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure time (days) | Effects observed |
|---------------------------------------|----------|-------------------|---------|--------|----------------------|------------------|
| sodium hypochlorite (active chlorine) | | No data available | | | | |
| 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 |
|---------------------------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| sodium hypochlorite (active chlorine) | | No data available | | | | |
| 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 hypochlorite (active chlorine) | | No data available | | | | |
| 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 hypochlorite (active chlorine) | 115 day(s) | Indirect photo-oxidation | | |
| 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 hypochlorite (active chlorine) | No data available | | | |
| sodium hydroxide | No data available | | | |

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Abiotic degradation - other processes, if available:

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

Biodegradation

Ready biodegradability - aerobic conditions

| Ingredient(s) | Inoculum | Analytical method | DT ₅₀ | Method | Evaluation |
|--|----------|-------------------|------------------|-----------|--------------------------------------|
| sodium hypochlorite (active chlorine) | | | | | Not applicable (inorganic substance) |
| amines, C12-18-alkyldimethyl, N-oxides | | | 90% | OECD 301D | Readily biodegradable |
| sodium hydroxide | | | | | Not applicable (inorganic substance) |

Ready biodegradability - anaerobic and marine conditions, if available:

| Ingredient(s) | Medium & Type | Analytical method | DT ₅₀ | Method | Evaluation |
|--|---------------|-------------------|------------------|--------|-----------------------|
| sodium hypochlorite (active chlorine) | | | | | No data available |
| amines, C12-18-alkyldimethyl, N-oxides | | | | | Readily biodegradable |
| sodium hydroxide | | | | | No data available |

Degradation in relevant environmental compartments, if available:

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

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log K_{ow})

| Ingredient(s) | Value | Method | Evaluation | Remark |
|--|-------------------|------------------|--------------------------------------|--------|
| sodium hypochlorite (active chlorine) | -3.42 | Method not given | No bioaccumulation expected | |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | | | |
| sodium hydroxide | No data available | | Not relevant, does not bioaccumulate | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|--|-------------------|---------|--------|------------|--------|
| sodium hypochlorite (active chlorine) | No data available | | | | |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | | | | |
| sodium hydroxide | 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 hypochlorite (active chlorine) | 1.12 | | | | High potential for mobility in soil |
| amines, C12-18-alkyldimethyl, N-oxides | No data available | | | | |
| 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 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

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European Waste Catalogue: material is suitable for energy recovery or recycling in line with local legislation.
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 or ID number: 3266

14.2 UN proper shipping name:

Corrosive liquid, basic, inorganic, n.o.s. (sodium hypochlorite , sodium hydroxide)

14.3 Transport hazard class(es):

Transport hazard class (and subsidiary risks): 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 Maritime transport in bulk according to IMO instruments: 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****National regulations :**

- Regulation (EC) 1907/2006 - REACH (UK amended)
- Regulation (EC) 1272/2008 - CLP (UK amended)
- Regulation (EC) 648/2004 - Detergents regulation (UK amended)
- Biocidal Products Regulations 2001 (SI 2001/880)
- Delegated Regulation (EU) 2017/2100 and Regulation (EU) 2018/605 (UK amended)
- 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.

Ingredients according to Detergents Regulation

chlorine-based bleaching agents, non-ionic surfactants, soap
perfumes

< 5 %

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) 648/2004 on detergents (UK amended). Data to support this assertion are held at the disposal of the competent authorities of the UK and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Comah - 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: MS1005398**Version:** 01.1**Revision:** 2023-10-19**Reason for revision:**

This data sheet contains changes from the previous version in section(s):, 3, 4, 9, 10, 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.

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
- 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.
- 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.

End of Safety Data Sheet