# Safety Data Sheet

*According to Regulation (EC) No 1907/2006*

## Suma Chlor D4.4

**Revision:** 2025-04-03 **Version:** 01.4

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

### 1.1 Product identifier

**Trade name:** Suma Chlor D4.4

UFI: D1AJ-N0X4-E00D-9QEA

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

| | |
|---|---|
| **Product use:** | Fruit / Vegetable wash.<br>For professional use only. |
| **Uses advised against:** | Uses other than those identified are not recommended. |

**SWED - Sector-specific worker exposure description :**
AISE_SWED_PW_8b_1
AISE_SWED_PW_19_1

### 1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, De Corridor 4, 3621ZB Breukelen [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@solenis.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

EUH031
Skin irritation, Category 2 (H315)
Eye irritation, Category 2 (H319)
Chronic aquatic toxicity, Category 3 (H412)

### 2.2 Label elements

**Signal word:** Warning.

**Hazard statements:**
H315 + H319 - Causes skin and serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.
EUH031 - Contact with acids liberates toxic gas.

### 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 | 01-2119488154-34 | EUH031<br>Skin corrosion, Category 1B (H314)<br>Serious eye damage, Category 1 (H318)<br>Acute aquatic toxicity, Category 1 M=10 (H400)<br>Chronic aquatic toxicity, Category 1 M=1 (H410)<br>Corrosive to metals, Category 1 (H290) | | 1-3 |

**Specific concentration limits**
sodium hypochlorite (active chlorine):
• EUH031 >= 5%

Workplace exposure limit(s), if available, are listed in subsection 8.1.
ATE, if available, are listed in section 11.
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**

**Inhalation:** Get medical attention or advice if you feel unwell.

**Skin contact:** Wash skin with plenty of lukewarm, gently flowing water. 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. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation occurs and persists, get medical attention.

**Ingestion:** Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. 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 irritation.

**Eye contact:** Causes severe irritation.

**Ingestion:** No known effects or symptoms in normal use.

**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**
In case of an incident in a confined area wear suitable respiratory protection. Repeated or prolonged contact:. 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**
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.
**Advice 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 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.

Comah - Lower Tier requirements (tonnes): 200
Comah - Upper Tier requirements (tonnes): 500

**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:

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 |

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 % | - |

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 % | - |

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 |

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 |

**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 | 0.000042 | 0.00026 | 0.03 |

Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m³) |
|---|---|---|---|---|
| sodium hypochlorite (active chlorine) | - | - | - | - |

**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 |
|---|---|---|---|---|---|
| Automatic transfer and dilution | AISE_SWED_PW_8b_1 | PW | PROC 8b | 60 | ERC8b |

**Personal protective equipment**
**Eye / face protection:** Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product (EN 16321).
**Hand protection:** Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary. Repeated or prolonged contact: 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:** 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.

*Recommended safety measures for handling the diluted product:*

**Recommended maximum concentration (% w/w):** 0.5

**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 |
|---|---|---|---|---|---|
| Manual application | AISE_SWED_PW_19_1 | PW | PROC 19 | 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**

**Method / remark**

**Physical state:** Liquid
**Colour:** Clear , Pale , Colourless
**Odour:** Chlorine
**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 | Method not given | 1013 |

| | | | |
|---|---|---|---|
| | before boiling | | |

**Method / remark**

**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 — 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) — ISO 4316
**Dilution pH:** ≈ 10 (0.5 %) — ISO 4316
**Kinematic viscosity:** Not determined
**Solubility in / Miscibility with water:** Fully miscible

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|---|---|---|---|
| sodium hypochlorite (active chlorine) | Soluble | | |

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

**Method / remark**

**Vapour pressure:** Not determined — See substance data

Substance data, vapour pressure

| Ingredient(s) | Value (Pa) | Method | Temperature (°C) |
|---|---|---|---|
| sodium hypochlorite (active chlorine) | Negligible | | |

**Method / remark**

**Relative density:** ≈ 1.04 (20 °C) — OECD 109 (EU A.3)
**Relative vapour density:** No data available. — Not relevant to classification of this product
**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:** Not 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**
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

**Skin irritation and corrosivity**
**Result:** Skin irritant 2 **Method:** OECD 435
**Eye irritation and corrosivity**
**Result:** Eye irritant 2 **Species:** Not applicable. **Method:** Weight of evidence

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 Oral (mg/kg) |
|---|---|---|---|---|---|---|
| sodium hypochlorite (active chlorine) | $LD_{50}$ | 1100 | Rat | OECD 401 (EU B.1) | 90 | Not established |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) | ATE Dermal (mg/kg) |
|---|---|---|---|---|---|---|
| sodium hypochlorite (active chlorine) | $LD_{50}$ | > 20000 | Rabbit | OECD 402 (EU B.3) | | 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 |

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 |

**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) | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|---|---|---|---|---|
| sodium hypochlorite (active chlorine) | Severe damage | Rabbit | OECD 405 (EU B.5) | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|---|---|---|---|---|
| sodium hypochlorite (active chlorine) | Irritating to respiratory tract | | | |

**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 | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|---|---|---|---|---|
| sodium hypochlorite (active chlorine) | Not sensitising | | | |

**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) |

Carcinogenicity

| Ingredient(s) | Effect |
|---|---|
| sodium hypochlorite (active chlorine) | 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 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 |

**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 | |

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 | | | | |

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 | | | | |

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 | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|---|---|
| sodium hypochlorite (active chlorine) | Not applicable |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|---|---|
| sodium hypochlorite (active chlorine) | Not applicable |

**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 hypochlorite (active chlorine) | $LC_{50}$ | 0.06 | *Oncorhynchus mykiss* | 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 | *Ceriodaphnia dubia* | OECD 202 (EU C.2) | 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 |

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 | *Crassostrea virginica* | Method not given | 2 |

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 | |

**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 | *Menidia pelinsulae* | Method not given | 96 hour(s) | |

Aquatic long-term toxicity - crustacea

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

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 | | | | |

Terrestrial toxicity - birds, if available:

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure time (days) | Effects observed |
|---|---|---|---|---|---|---|
| sodium hypochlorite (active chlorine) | | 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 | | | | |

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 | | | | |

### 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 | | |

Abiotic degradation - hydrolysis, if available:

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

Abiotic degradation - other processes, if available:

| Ingredient(s) | Type | Half-life time | Method | Evaluation | Remark |
|---|---|---|---|---|---|
| sodium hypochlorite (active chlorine) | | 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) |

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 |

Degradation in relevant environmental compartments, if available:

| Ingredient(s) | Medium & Type | Analytical method | $DT_{50}$ | Method | Evaluation |
|---|---|---|---|---|---|
| sodium hypochlorite (active chlorine) | | | | | No data available |

### 12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

| Ingredient(s) | Value | Method | Evaluation | Remark |
|---|---|---|---|---|
| sodium hypochlorite (active chlorine) | -3.42 | Method not given | No bioaccumulation expected | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|---|---|---|---|---|---|
| sodium hypochlorite (active chlorine) | No data available | | | | |

### 12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

| Ingredient(s) | Adsorption coefficient Log Koc | Desorption coefficient Log Koc(des) | Method | Soil/sediment type | Evaluation |
|---|---|---|---|---|---|
| sodium hypochlorite (active chlorine) | 1.12 | | | | High potential for mobility 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 material is suitable for energy recovery or recycling in line with local legislation. |
| **European Waste Catalogue:** | 16 03 03* - inorganic wastes containing dangerous substances. |

| | |
|---|---|
| **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:** Non-dangerous goods
**14.2 UN proper shipping name:** Non-dangerous goods
**14.3 Transport hazard class(es):** Non-dangerous goods
**14.4 Packing group:** Non-dangerous goods
**14.5 Environmental hazards:** Non-dangerous goods
**14.6 Special precautions for user:** Non-dangerous goods
**14.7 Maritime transport in bulk according to IMO instruments:** Non-dangerous goods

**Other relevant information:**
**IMO/IMDG**
**EmS:** F-A, S-B

## 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) 1333/2008 - Food additives (UK amended)
- 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.

**Comah - classification:** 41. Mixtures of sodium hypochlorite classified as Aquatic Acute Category 1 [H400] containing less than 5 % active chlorine and not classified under any of the other hazard categories in Part 1 of Annex I

**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:** MS1004285 **Version:** 01.4 **Revision:** 2025-04-03

**Reason for revision:**
This data sheet contains changes from the previous version in section(s):, 3, 8, 9, 11, 12, 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.
- H314 - Causes severe skin burns and eye damage.
- H318 - Causes serious eye damage.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.
- EUH031 - Contact with acids liberates toxic gas.

**End of Safety Data Sheet**