# Safety Data Sheet

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

## Titan Sanitizer

**Revision:** 2022-07-31 **Version:** 03.2

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

**1.1 Product identifier**
**Trade name:** Titan Sanitizer

UFI: JF27-F0SQ-F00T-FXWP

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

| | |
|---|---|
| **Product use:** | Hard surface cleaner.<br>Surface disinfectant.<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_8a_2
AISE_SWED_PW_19_1

**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

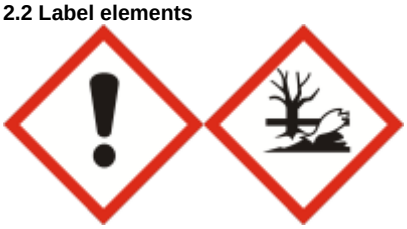
**1.4 Emergency telephone number**
Seek medical advice (show the label or safety data sheet where possible)
For medical or environmental emergency only:
call 0800 052 0185

## SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture**

EUH031
Eye Irrit. 2 (H319)
Aquatic Chronic 2 (H411)

**2.2 Label elements**



**Signal word:** Warning.

**Hazard statements:**
H319 - Causes serious eye irritation.
H411 - Toxic 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 dichloroisocyanurate, dihydrate | 220-767-7 | - | [6] | EUH031<br>Acute Tox. 4 (H302)<br>STOT SE 3 (H335)<br>Eye Irrit. 2 (H319)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410)<br>Aquatic Chronic 2 (H411) | | 3-10 |
| sodium alkylbenzenesulphonate | 270-115-0 | 68411-30-3 | 01-2119489428-22 | Acute Tox. 4 (H302)<br>Skin Irrit. 2 (H315)<br>Eye Dam. 1 (H318)<br>Aquatic Chronic 3 (H412) | | 3-10 |
| sodium silicate | 215-687-4 | 1344-09-8 | 01-2119448725-31 | STOT SE 3 (H335)<br>Skin Irrit. 2 (H315)<br>Eye Dam. 1 (H318) | | 3-10 |

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**

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

**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**

No special measures required.

**6.2 Environmental precautions**

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**

Collect mechanically. 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 adviced by Diversey. Wash hands before breaks and at the end of workday. Avoid contact with 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 dichloroisocyanurate, dihydrate | - | - | - | 1.15 |
| sodium alkylbenzenesulphonate | - | - | - | 0.425 |
| sodium silicate | - | - | - | 0.8 |

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 dichloroisocyanurate, dihydrate | - | - | - | 2.3 |
| sodium alkylbenzenesulphonate | - | - | - | 119 |
| sodium silicate | No data available | - | No data available | 1.59 |

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 dichloroisocyanurate, dihydrate | - | - | - | 1.15 |
| sodium alkylbenzenesulphonate | - | - | - | 42.5 |
| sodium silicate | No data available | - | No data available | 0.8 |

DNEL/DMEL inhalatory exposure - Worker ($mg/m^3$)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | - | - | - | 8.11 |
| sodium alkylbenzenesulphonate | - | - | - | 6 |
| sodium silicate | - | - | - | 5.61 |

DNEL/DMEL inhalatory exposure - Consumer ($mg/m^3$)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | - | - | - | 1.99 |
| sodium alkylbenzenesulphonate | - | - | - | 1.5 |
| sodium silicate | - | - | - | 1.38 |

**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 dichloroisocyanurate, dihydrate | 0.00017 | 1.52 | 0.0017 | 0.59 |
| sodium alkylbenzenesulphonate | 0.268 | 0.0268 | 0.0167 | 3.43 |
| sodium silicate | 7.5 | 1 | 7.5 | 348 |

Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m³) |
|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | 7.56 | - | 0.756 | - |
| sodium alkylbenzenesulphonate | 8.1 | 6.8 | 35 | - |
| sodium silicate | - | - | - | - |

**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 transfer and dilution | AISE_SWED_PW_8a_2 | PW | PROC 8a | 60 | 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:** Should not reach sewage water or drainage ditch undiluted.

*Recommended safety measures for handling the diluted product:*

**Recommended maximum concentration (% w/w):** 2

**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:** Solid
**Colour:** Blue
**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 — Not applicable to solids or gases

Substance data, boiling point

| Ingredient(s) | Value (°C) | Method | Atmospheric pressure (hPa) |
|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | Product decomposes before boiling | Read across | |
| sodium alkylbenzenesulphonate | No data available | | |
| sodium silicate | > 100 | Method not given | |

**Method / remark**

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

Substance data, flammability or explosive limits, if available:

**Method / remark**

**Autoignition temperature:** Not determined
**Decomposition temperature:** Not applicable.
**pH:** Not applicable
**Dilution pH:** ≈ 11 (2 %) — ISO 4316
**Kinematic viscosity:** Not determined — Not applicable to solids or gases
**Solubility in / Miscibility with water:** Soluble

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | 248.2 | Read across | 25 |
| sodium alkylbenzenesulphonate | > 250 | | |
| sodium silicate | Soluble | Method not given | 20 |

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 dichloroisocyanurate, dihydrate | 0.006 | Read across | 20 |
| sodium alkylbenzenesulphonate | No data available | | |
| sodium silicate | No data available | | |

**Method / remark**

**Relative density:** ≈ 1.05 (20 °C) — OECD 109 (EU A.3)
**Relative vapour density:** No data available. — Not applicable to solids
**Particle characteristics:** Not determined. — Not relevant to classification of this product.

**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 determined — Not applicable to solids or gases

**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 toxicological effects**

Mixture data:.

**Relevant calculated ATE(s):**
ATE - Oral (mg/kg): >2000

**Eye irritation and corrosivity**
**Result:** Eye irritant 2 **Method:** OECD 438

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 dichloroisocyanurate, dihydrate | $LD_{50}$ | 1671 | Rat | EPA OPP 81-1 | | 11000 |
| sodium alkylbenzenesulphonate | $LD_{50}$ | 1080 | Rat | OECD 401 (EU B.1) | | 11000 |
| sodium silicate | $LD_{50}$ | 3400 | Rat | Method not given | | Not established |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) | ATE (mg/kg) |
|---|---|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | $LD_{50}$ | > 5000 | Rat | EPA OPP 81-2 | | Not established |
| sodium alkylbenzenesulphonate | $LD_{50}$ | > 2000 | Rat | OECD 402 (EU B.3) | | Not established |
| sodium silicate | $LD_{50}$ | > 5000 | Rat | Method not given | | Not established |

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|---|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | $LC_{50}$ | > 0.27 | Rat | OECD 403 (EU B.2) | 4 |
| sodium alkylbenzenesulphonate | | No data available | | | |
| sodium silicate | $LC_{50}$ | > 2.06 No mortality observed | Rat | Non guideline test | |

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 dichloroisocyanurate, dihydrate | Not established | Not established | Not established | Not established |
| sodium alkylbenzenesulphonate | Not established | Not established | Not established | Not established |
| sodium silicate | Not established | Not established | Not established | Not established |

**Irritation and corrosivity**
Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | Not irritant | | Method not given | |
| sodium alkylbenzenesulphonate | Irritant | Rabbit | OECD 404 (EU B.4) | |
| sodium silicate | Irritant | | Method not given | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | Irritant | | Method not given | |
| sodium alkylbenzenesulphonate | Corrosive | Rabbit | OECD 405 (EU B.5) | |
| sodium silicate | Severe damage | | Method not given | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | Irritating to respiratory tract | | | |
| sodium alkylbenzenesulphonate | Not irritating to respiratory tract | | | |
| sodium silicate | Irritating to respiratory tract | | Method not given | |

**Sensitisation**

Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | Not sensitising | Guinea pig | OECD 429 (EU B.42) | |
| sodium alkylbenzenesulphonate | Not sensitising | Guinea pig | OECD 406 (EU B.6) / GPMT | |
| sodium silicate | Not sensitising | | Method not given | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | No data available | | | |
| sodium alkylbenzenesulphonate | No data available | | | |
| sodium silicate | 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 dichloroisocyanurate, dihydrate | No evidence for mutagenicity, negative test results | OECD 471 (EU B.12/13) | No evidence of genotoxicity, negative test results | OECD 475 (EU B.11) |
| sodium alkylbenzenesulphonate | No evidence for mutagenicity, negative test results | OECD 471 (EU B.12/13) OECD 476 OECD 473 | No data available | |
| sodium silicate | No evidence for mutagenicity, negative test results | | No data available | |

Carcinogenicity

| Ingredient(s) | Effect |
|---|---|
| sodium dichloroisocyanurate, dihydrate | No evidence for carcinogenicity, negative test results |
| sodium alkylbenzenesulphonate | No data available |
| sodium silicate | 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 dichloroisocyanurate, dihydrate | NOAEL | Developmental toxicity | 190 | Rat | OECD 416, (EU B.35), oral | | |
| sodium alkylbenzenesulphonate | NOAEL | Teratogenic effects | 300 | Rat | Non guideline test | | No known significant effects or critical hazards |
| sodium silicate | | | No data available | | | | 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 dichloroisocyanurate, dihydrate | NOAEL | 115 | Rat | Method not given | 28 | |
| sodium alkylbenzenesulphonate | | No data available | | | | |
| sodium silicate | NOAEL | > 159 | Rat | Method not given | 180 | No effects observed |

Sub-chronic dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg bw/d) | Species | Method | Exposure time (days) | Specific effects and organs affected |
|---|---|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | | No data available | | | | |
| sodium alkylbenzenesulphonate | | No data available | | | | |
| sodium silicate | | 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 dichloroisocyanurate, dihydrate | NOAEL | > 31 | Rat | Method not given | 28 | |
| sodium alkylbenzenesulphonate | | No data available | | | | |
| sodium silicate | | 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 dichloroisocyanurate, dihydrate | Oral | NOAEL | 1523 | Mouse | OECD 453 (EU B.33) | 24 month(s) | | |
| sodium alkylbenzenesulphonate | | | No data available | | | | | |
| sodium silicate | | | No data available | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|---|---|
| sodium dichloroisocyanurate, dihydrate | Respiratory tract |
| sodium alkylbenzenesulphonate | No data available |
| sodium silicate | No data available |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|---|---|
| sodium dichloroisocyanurate, dihydrate | No data available |
| sodium alkylbenzenesulphonate | No data available |
| sodium silicate | 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 dichloroisocyanurate, dihydrate | $LC_{50}$ | 0.23 | *Lepomis macrochirus* | Method not given | 96 |
| sodium alkylbenzenesulphonate | $LC_{50}$ | 1.67 | *Fish* | EPA-OPPTS 850.1075 | 96 |
| sodium silicate | $LC_{50}$ | 1108 | *Brachydanio* | Method not given | 96 |

| | | | | | |
|---|---|---|---|---|---|
| | | | *rerio* | | |

Aquatic short-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|---|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | $EC_{50}$ | 0.21 | *Daphnia magna Straus* | ASTM draft method | 48 |
| sodium alkylbenzenesulphonate | $LC_{50}$ | 2.9 | *Daphnia* | OECD 202 (EU C.2) | 48 |
| sodium silicate | $EC_{50}$ | 1700 | *Daphnia magna Straus* | Method not given | 48 |

Aquatic short-term toxicity - algae

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|---|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | $EC_{50}$ | < 0.5 | *Scenedesmus obliquus* | Non guideline test | 3 |
| sodium alkylbenzenesulphonate | $E_b C_{50}$ | 47.3 | *Not specified* | Non guideline test | 72 |
| sodium silicate | $EC_{50}$ | 207 | *Desmodesmus subspicatus* | Method not given | 72 |

Aquatic short-term toxicity - marine species

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (days) |
|---|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | | No data available | | | |
| sodium alkylbenzenesulphonate | | No data available | | | |
| sodium silicate | | No data available | | | |

Impact on sewage plants - toxicity to bacteria

| Ingredient(s) | Endpoint | Value (mg/l) | Inoculum | Method | Exposure time |
|---|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | $EC_{50}$ | 51 | | OECD 209 | 3 hour(s) |
| sodium alkylbenzenesulphonate | $EC_{50}$ | 550 | *Bacteria* | OECD 209 | 3 hour(s) |
| sodium silicate | | 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 dichloroisocyanurate, dihydrate | NOEC | 1000 | *Oncorhynchus mykiss* | OECD 215 | 28 day(s) | |
| sodium alkylbenzenesulphonate | NOEC | 0.23 | *Oncorhynchus mykiss* | Method not given | 72 day(s) | |
| sodium silicate | NOEC | 348 | *Brachydanio rerio* | Method not given | 96 hour(s) | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|---|---|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | NOEC | 160 | *Daphnia magna* | OECD 211 | 21 day(s) | |
| sodium alkylbenzenesulphonate | NOEC | 1.41 | *Daphnia magna* | OECD 211 | | |
| sodium silicate | | 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 dichloroisocyanurate, dihydrate | | No data available | | | | |
| sodium alkylbenzenesulphonate | | No data available | | | | |
| sodium silicate | | 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 dichloroisocyanurate, dihydrate | NOEC | 1000 | *Eisenia fetida* | OECD 207 | 14 | |

Terrestrial toxicity - plants, if available:

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

Terrestrial toxicity - birds, if available:

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

Abiotic degradation - hydrolysis, if available:

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

Abiotic degradation - other processes, if available:

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

**Biodegradation**

Ready biodegradability - aerobic conditions

| Ingredient(s) | Inoculum | Analytical method | $DT_{50}$ | Method | Evaluation |
|---|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | | Oxygen depletion | 2 % in 28d day(s) | OECD 301D | Not readily biodegradable. |
| sodium alkylbenzenesulphonate | Activated sludge, aerobe | $CO_2$ production | 85 % in 28 day(s) | OECD 301B | Readily biodegradable |
| sodium silicate | | | | | Not applicable (inorganic substance) |

Ready biodegradability - anaerobic and marine conditions, if available:

| Ingredient(s) | Medium & Type | Analytical method | $DT_{50}$ | Method | Evaluation |
|---|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | | | | | No data available |

Degradation in relevant environmental compartments, if available:

| Ingredient(s) | Medium & Type | Analytical method | $DT_{50}$ | Method | Evaluation |
|---|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | | | | | No data available |

### 12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

| Ingredient(s) | Value | Method | Evaluation | Remark |
|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | -0.0056 | Method not given | No bioaccumulation expected | |

| | | | | |
|---|---|---|---|---|
| sodium alkylbenzenesulphonate | 3.32 | Method not given | Low potential for bioaccumulation | |
| sodium silicate | No data available | | Low potential for bioaccumulation | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|---|---|---|---|---|---|
| sodium dichloroisocyanurate, dihydrate | No data available | | | | |
| sodium alkylbenzenesulphonate | 2-1000 | | Method not given | High potential for bioaccumulation | |
| sodium silicate | 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 dichloroisocyanurate, dihydrate | No data available | | | | |
| sodium alkylbenzenesulphonate | No data available | | | | |
| sodium silicate | No data available | | | | |

**12.5 Results of PBT and vPvB assessment**

Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.

**12.6 Endocrine disrupting properties**

Endocrine disrupting properties - Environmental effects, if available:

**12.7 Other adverse effects**

No other adverse effects known.

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

**Waste from residues / unused products:** The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.

**European Waste Catalogue:** 20 01 29* - detergents containing dangerous substances.

**Empty packaging**

**Recommendation:** Dispose of observing national or local regulations.

## SECTION 14: Transport information


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

**14.1 UN number:** 3077

**14.2 UN proper shipping name:**

Environmentally hazardous substance, solid, n.o.s. ( sodium dichloroisocyanurate dihydrate )

**14.3 Transport hazard class(es):**

**Transport hazard class (and subsidiary risks):** 9

**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 and the IBC Code:** The product is not transported in bulk tankers.

**Other relevant information:**

**ADR**

**Classification code:** M7

**Tunnel restriction code:** -

**Hazard identification number:** 90

**IMO/IMDG**

**EmS:** F-A, S-F

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 dangerous goods packed in small quantities classified under UN3077 or UN3082

## 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**

| | |
|---|---|
| phosphates | 15 - 30 % |
| anionic surfactants, chlorine-based bleaching agents, non-ionic surfactants | < 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:** E2 - Hazardous to the Aquatic Environment in Category Chronic 2

**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:** MSDSGB6521 **Version:** 03.2 **Revision:** 2022-07-31

**Reason for revision:**

This data sheet contains changes from the previous version in section(s):, 1, 3, 4, 6, 7, 8, 10, 15, 16, Overall design adjusted in accordance with Amendment 2020/878, 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 H and EUH phrases mentioned in section 3:**

- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.
- 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.
- H412 - Harmful to aquatic life with long lasting effects.
- EUH031 - Contact with acids liberates toxic gas.

**Abbreviations and acronyms:**

- AISE - The international Association for Soaps, Detergents and Maintenance Products
- ATE - Acute Toxicity Estimate
- DNEL - Derived No Effect Limit
- EC50 - effective concentration, 50%
- ERC - Environmental release categories
- EUH - CLP Specific hazard statement
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- LCS - Life cycle stage

- LD50 - Lethal Dose, 50% / Median Lethal dose
- NOAEL - No observed adverse effect level
- NOEL - No observed effect level
- OECD - Organisation for Economic Cooperation and Development
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- PROC - Process categories
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative

**End of Safety Data Sheet**