



A Solenis Company

Suma Revoflow Metal P7

Revision: 2024-03-02

Version: 05.0

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

1.1 Product identifier

Trade name: Suma Revoflow Metal P7

UFI: F1P0-S0P9-N005-R17K

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

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

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

SWED - Sector-specific worker exposure description :

AISE_SWED_PW_8b_1
AISE_SWED_PW_4_1

1.3 Details of the supplier of the safety data sheet

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

Contact details

Tandur Hf.
Hesthálsi 12, 110 Reykjavík
Tel. 5101200, Email: tandur@tandur.is

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible).
Poison Center: (+354) 543-2222
Emergency services: 112.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

EUH031
Skin corrosion, Category 1B (H314)
Serious eye damage, Category 1 (H318)
Chronic aquatic toxicity, Category 3 (H412)

2.2 Label elements



Signal word: Danger.

Contains disodium metasilicate (Sodium Metasilicate), disodium disilicate (Disodium Disilicate)

Hazard statements:

H314 - Causes severe skin burns and eye damage.
H412 - Harmful to aquatic life with long lasting effects.
EUH031 - Contact with acids liberates toxic gas.

Precautionary statements:

P260 - Do not breathe dust.
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.

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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 carbonate | 207-838-8 | 497-19-8 | 01-211948549 8-19 | Eye irritation, Category 2 (H319) | | 30-50 |
| disodium metasilicate | 229-912-9 | 6834-92-0 | 01-211944981 1-37 | Skin corrosion, Category 1B (H314) Specific target organ toxicity - Single exposure, Category 3 (H335) Serious eye damage, Category 1 (H318) Corrosive to metals, Category 1 (H290) | | 10-20 |
| disodium disilicate | 215-687-4 | 1344-09-8 | 01-211944872 5-31 | Specific target organ toxicity - Single exposure, Category 3 (H335) Skin irritation, Category 2 (H315) Serious eye damage, Category 1 (H318) | | 10-20 |
| sodium dichloroisocyanurate, dihydrate | 220-767-7 | - | [6] | EUH031 Acute toxicity - Oral, Category 4 (H302) Specific target organ toxicity - Single exposure, Category 3 (H335) Eye irritation, Category 2 (H319) Acute aquatic toxicity, Category 1 M=1 (H400) Chronic aquatic toxicity, Category 1 M=1 (H410) | | 1-3 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | [4] | 120313-48-6 | [4] | Skin irritation, Category 2 (H315) Acute aquatic toxicity, Category 1 M=1 (H400) Chronic aquatic toxicity, Category 3 (H412) | | 0.1-1 |

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

ATE, if available, are listed in section 11.

[4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.

[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

Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

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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

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. 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 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 dust. Use only with adequate ventilation. See chapter 8.2, Exposure controls / Personal protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local and national regulations. Store in a closed container. Keep only in original packaging. For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Workplace exposure limits**

Air limit values, if available:

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 carbonate | - | - | - | - |
| disodium metasilicate | - | - | - | 0.74 |
| disodium disilicate | - | - | - | 0.8 |
| sodium dichloroisocyanurate, dihydrate | - | - | - | 1.15 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |

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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 carbonate | - | - | No data available | - |
| disodium metasilicate | No data available | - | No data available | 1.49 |
| disodium disilicate | No data available | - | No data available | 1.59 |
| sodium dichloroisocyanurate, dihydrate | - | - | - | 2.3 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |

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 carbonate | No data available | - | No data available | - |
| disodium metasilicate | No data available | - | No data available | 0.74 |
| disodium disilicate | No data available | - | No data available | 0.8 |
| sodium dichloroisocyanurate, dihydrate | - | - | - | 1.15 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |

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 carbonate | - | - | 10 | - |
| disodium metasilicate | - | - | - | 6.22 |
| disodium disilicate | - | - | - | 5.61 |
| sodium dichloroisocyanurate, dihydrate | - | - | - | 8.11 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |

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 carbonate | 10 | - | - | - |
| disodium metasilicate | - | - | - | 1.55 |
| disodium disilicate | - | - | - | 1.38 |
| sodium dichloroisocyanurate, dihydrate | - | - | - | 1.99 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |

Environmental exposure

Environmental exposure - PNEC

| Ingredient(s) | Surface water, fresh (mg/l) | Surface water, marine (mg/l) | Intermittent (mg/l) | Sewage treatment plant (mg/l) |
|--|-----------------------------|------------------------------|---------------------|-------------------------------|
| sodium carbonate | - | - | - | - |
| disodium metasilicate | 7.5 | 1 | 7.5 | 1000 |
| disodium disilicate | 7.5 | 1 | 7.5 | 348 |
| sodium dichloroisocyanurate, dihydrate | 0.00017 | 1.52 | 0.0017 | 0.59 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |

Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m ³) |
|--|------------------------------|--------------------------|-------------------|--------------------------|
| sodium carbonate | - | - | - | - |
| disodium metasilicate | - | - | - | - |
| disodium disilicate | - | - | - | - |
| sodium dichloroisocyanurate, dihydrate | 7.56 | - | 0.756 | - |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |

8.2 Exposure controls

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

Recommended safety measures for handling the undiluted product:

- Appropriate engineering controls:** If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required.
- Appropriate organisational controls:** Avoid direct contact and/or splashes where possible. Train personnel.

REACH use scenarios considered for the undiluted product:

| | | | | | |
|--|------------------------|-----|------|----------|-----|
| | SWED - Sector-specific | LCS | PROC | Duration | ERC |
|--|------------------------|-----|------|----------|-----|

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| | worker exposure description | | | (min) | |
|---------------------------------|-----------------------------|----|---------|-------|-------|
| Automatic transfer and dilution | AISE_SWED_PW_8b_1 | PW | PROC 8b | 60 | ERC8b |

Personal protective equipment**Eye / face protection:**

Safety glasses or goggles (EN 16321 / EN 166).

Hand protection:

Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.

Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mmSuggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min Material thickness: ≥ 0.4 mm

In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

Body protection:

Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN ISO 13982-1).

Respiratory protection:

If exposure to dust cannot be avoided use: half mask (EN 140) with particle filter P2 (EN 143) or full-face mask (EN 136) with particle filter P1 (EN 143) Consider specific local use conditions. In consultation with the supplier of respiratory protection equipment a different type providing similar protection may be chosen.

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):** 0.2**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 |
|---|------------------|-----|--------|----------------|-------|
| Automatic application in a dedicated system | AISE_SWED_PW_4_1 | PW | PROC 4 | 480 | ERC8a |

Personal protective equipment**Eye / face protection:**

No special requirements under normal use conditions.

Hand protection:

No special requirements under normal use conditions.

Body protection:

No special requirements under normal use conditions.

Respiratory protection:

No special requirements under normal use conditions.

Environmental exposure controls:

No special requirements under normal use conditions.

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

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

Method / remark**Physical state:** Solid**Colour:** Clear , White**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 carbonate | 1600 | Method not given | 1013 |
| disodium metasilicate | No data available | | |
| disodium disilicate | > 100 | Method not given | |
| sodium dichloroisocyanurate, dihydrate | Product decomposes before boiling | Read across | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | > 250 | Method not given | |

Method / remark**Flammability (solid, gas):** Not determined**Flammability (liquid):** Not applicable.

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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 (0.2 %)

Kinematic viscosity: Not applicable to solids or gases

Solubility in / Miscibility with water: Soluble

ISO 4316

Not applicable to solids or gases

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|--|-------------|------------------|------------------|
| sodium carbonate | 210-215 | Method not given | 20 |
| disodium metasilicate | 350 | Method not given | 20 |
| disodium disilicate | Soluble | Method not given | 20 |
| sodium dichloroisocyanurate, dihydrate | 248.2 | Read across | 25 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | Insoluble | | |

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 carbonate | Negligible | | |
| disodium metasilicate | No data available | | |
| disodium disilicate | No data available | | |
| sodium dichloroisocyanurate, dihydrate | 0.006 | Read across | 20 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | < 10 | Method not given | 20 |

Method / remark

Relative density: ≈ 0.95 (20 °C)

Relative vapour density: No data available.

Particle characteristics: Not determined.

OECD 109 (EU A.3)

Not applicable to solids

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.

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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 Oral (mg/kg) |
|--|------------------|---------------|---------|-------------------|-------------------|------------------|
| sodium carbonate | LD ₅₀ | 2800 | Rat | OECD 401 (EU B.1) | | 2800 |
| disodium metasilicate | LD ₅₀ | 770 - 820 | Mouse | Method not given | ECHA Dossier 2020 | 770 |
| disodium disilicate | LD ₅₀ | 3400 | Rat | Method not given | | 3400 |
| sodium dichloroisocyanurate, dihydrate | LD ₅₀ | 1671 | Rat | EPA OPP 81-1 | | 1671 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | LD ₅₀ | > 2000 | Rat | Method not given | | Not established |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) | ATE Dermal (mg/kg) |
|--|------------------|-------------------|----------------|------------------|-------------------|--------------------|
| sodium carbonate | LD ₅₀ | > 2000 | Rabbit | Method not given | | Not established |
| disodium metasilicate | LD ₅₀ | > 5000 | Rat Guinea pig | Method not given | | Not established |
| disodium disilicate | LD ₅₀ | > 5000 | Rat | Method not given | | Not established |
| sodium dichloroisocyanurate, dihydrate | LD ₅₀ | > 5000 | Rat | EPA OPP 81-2 | | Not established |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | No data available | | | | Not established |

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--|------------------|------------------------------|---------|--------------------|-------------------|
| sodium carbonate | LC ₅₀ | > 2.3 (dust) | | Weight of evidence | 2 |
| disodium metasilicate | LC ₅₀ | > 2.06 | Rat | Method not given | |
| disodium disilicate | LC ₅₀ | > 2.06 No mortality observed | Rat | Non guideline test | |
| sodium dichloroisocyanurate, dihydrate | LC ₅₀ | > 0.27 | Rat | OECD 403 (EU B.2) | 4 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | No data available | | | |

Acute inhalative toxicity, continued

| Ingredient(s) | ATE - inhalation, dust (mg/l) | ATE - inhalation, mist (mg/l) | ATE - inhalation, vapour (mg/l) | ATE - inhalation, gas (mg/l) |
|--|-------------------------------|-------------------------------|---------------------------------|------------------------------|
| sodium carbonate | Not established | Not established | Not established | Not established |
| disodium metasilicate | Not established | Not established | Not established | Not established |
| disodium disilicate | Not established | Not established | Not established | Not established |
| sodium dichloroisocyanurate, dihydrate | Not established | Not established | Not established | Not established |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | Not established | Not established | Not established | Not established |

Irritation and corrosivity

Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|--------------|---------|-------------------|---------------|
| sodium carbonate | Not irritant | Rabbit | OECD 404 (EU B.4) | |
| disodium metasilicate | Corrosive | | Method not given | |
| disodium disilicate | Irritant | | Method not given | |
| sodium dichloroisocyanurate, dihydrate | Not irritant | | Method not given | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | Irritant | Rabbit | Draize test | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|---------------|--------|---------|--------|---------------|
|---------------|--------|---------|--------|---------------|

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| | | | | |
|--|---------------------------|--------|-------------------|--|
| sodium carbonate | Irritant | Rabbit | OECD 405 (EU B.5) | |
| disodium metasilicate | Corrosive | | Method not given | |
| disodium disilicate | Severe damage | | Method not given | |
| sodium dichloroisocyanurate, dihydrate | Irritant | | Method not given | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | Not corrosive or irritant | Rabbit | Draize test | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|---------------------------------|---------|------------------|---------------|
| sodium carbonate | No data available | | | |
| disodium metasilicate | Irritating to respiratory tract | | Method not given | |
| disodium disilicate | Irritating to respiratory tract | | Method not given | |
| sodium dichloroisocyanurate, dihydrate | Irritating to respiratory tract | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | | | |

Sensitisation

Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|--|-------------------|------------|--------------------|-------------------|
| sodium carbonate | Not sensitising | | Method not given | |
| disodium metasilicate | Not sensitising | Mouse | OECD 429 (EU B.42) | |
| disodium disilicate | Not sensitising | | Method not given | |
| sodium dichloroisocyanurate, dihydrate | Not sensitising | Guinea pig | OECD 429 (EU B.42) | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | | | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|-------------------|---------|--------|---------------|
| sodium carbonate | No data available | | | |
| disodium metasilicate | No data available | | | |
| disodium disilicate | No data available | | | |
| sodium dichloroisocyanurate, dihydrate | No data available | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | 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 carbonate | No data available | | No data available | |
| disodium metasilicate | No data available | | No data available | |
| disodium disilicate | No evidence for mutagenicity, negative test results | | No data available | |
| 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) |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | | No data available | |

Carcinogenicity

| Ingredient(s) | Effect |
|--|--|
| sodium carbonate | No evidence for carcinogenicity, weight-of-evidence |
| disodium metasilicate | No data available |
| disodium disilicate | No evidence for carcinogenicity, negative test results |
| sodium dichloroisocyanurate, dihydrate | No evidence for carcinogenicity, negative test results |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available |

Toxicity for reproduction

| Ingredient(s) | Endpoint | Specific effect | Value (mg/kg bw/d) | Species | Method | Exposure time | Remarks and other effects reported |
|---|----------|------------------------|--------------------|---------|---------------------------|---------------|--|
| sodium carbonate | | | No data available | | | | |
| disodium metasilicate | | | No data available | | | | |
| disodium disilicate | | | No data available | | | | No evidence for reproductive toxicity |
| sodium dichloroisocyanurate, dihydrate | NOAEL | Developmental toxicity | 190 | Rat | OECD 416, (EU B.35), oral | | No known significant effects or critical hazards |
| Alcohols, C12-15-branched and linear, ethoxylated | | | No data available | | | | |

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| | | | | | | | |
|--------------|--|--|--|--|--|--|--|
| propoxylated | | | | | | | |
|--------------|--|--|--|--|--|--|--|

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 carbonate | | No data available | | | | |
| disodium metasilicate | NOAEL | > 227 - 237 | Rat | Method not given | | |
| disodium disilicate | NOAEL | > 159 | Rat | Method not given | 180 | No effects observed |
| sodium dichloroisocyanurate, dihydrate | NOAEL | 115 | Rat | Method not given | 28 | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | 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 carbonate | | No data available | | | | |
| disodium metasilicate | | No data available | | | | |
| disodium disilicate | | No data available | | | | |
| sodium dichloroisocyanurate, dihydrate | | No data available | | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | 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 carbonate | | No data available | | | | |
| disodium metasilicate | | No data available | | | | |
| disodium disilicate | | No data available | | | | |
| sodium dichloroisocyanurate, dihydrate | NOAEL | > 31 | Rat | Method not given | 28 | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | 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 carbonate | | | No data available | | | | | |
| disodium metasilicate | | | No data available | | | | | |
| disodium disilicate | | | No data available | | | | | |
| sodium dichloroisocyanurate, dihydrate | Oral | NOAEL | 1523 | Mouse | OECD 453 (EU B.33) | 24 month(s) | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | | No data available | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|--|-------------------|
| sodium carbonate | Not applicable |
| disodium metasilicate | Respiratory tract |
| disodium disilicate | No data available |
| sodium dichloroisocyanurate, dihydrate | Respiratory tract |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|--|-------------------|
| sodium carbonate | Not applicable |
| disodium metasilicate | Not applicable |
| disodium disilicate | Not applicable |
| sodium dichloroisocyanurate, dihydrate | Not applicable |

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| | |
|--|-------------------|
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available |
|--|-------------------|

Aspiration hazard

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

Potential adverse health effects and symptoms

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

11.2 Information on other hazards**11.2.1 Endocrine disrupting properties**

Endocrine disrupting properties - Human data, if available:

11.2.2 Other information

No other relevant information available.

SECTION 12: Ecological information**12.1 Toxicity**

No data is available on the mixture.

Substance data, where relevant and available, are listed below:

Aquatic short-term toxicity

Aquatic short-term toxicity - fish

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--|------------------|--------------|----------------------------|-------------------|-------------------|
| sodium carbonate | LC ₅₀ | 300 | <i>Lepomis macrochirus</i> | Method not given | 96 |
| disodium metasilicate | LC ₅₀ | 210 | <i>Brachydanio rerio</i> | Method not given | 96 |
| disodium disilicate | LC ₅₀ | 1108 | <i>Brachydanio rerio</i> | Method not given | 96 |
| sodium dichloroisocyanurate, dihydrate | LC ₅₀ | 0.23 | <i>Lepomis macrochirus</i> | Method not given | 96 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | LC ₅₀ | > 1-10 | <i>Fish</i> | OECD 203 (EU C.1) | 96 |

Aquatic short-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--|------------------|--------------|-----------------------------|-------------------|-------------------|
| sodium carbonate | EC ₅₀ | 200-227 | <i>Ceriodaphnia dubia</i> | Method not given | 96 |
| disodium metasilicate | EC ₅₀ | 1700 | <i>Daphnia</i> | Method not given | 48 |
| disodium disilicate | EC ₅₀ | 1700 | <i>Daphnia magna Straus</i> | Method not given | 48 |
| sodium dichloroisocyanurate, dihydrate | EC ₅₀ | 0.21 | <i>Daphnia magna Straus</i> | ASTM draft method | 48 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | EC ₅₀ | ≤ 1 | <i>Daphnia magna Straus</i> | OECD 202 (EU C.2) | 48 |

Aquatic short-term toxicity - algae

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--|------------------|--------------|----------------------------------|--------------------|---|
| sodium carbonate | EC ₅₀ | > 800 | <i>Selenastrum capricornutum</i> | | 72 |
| disodium metasilicate | EC ₅₀ | 207 | <i>Chlorella pyrenoidosa</i> | Method not given | 72 |
| disodium disilicate | EC ₅₀ | 207 | <i>Desmodesmus subspicatus</i> | Method not given | 72 |
| sodium dichloroisocyanurate, dihydrate | EC ₅₀ | < 0.5 | <i>Scenedesmus obliquus</i> | Non guideline test | 3 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | EC ₅₀ | ≤ 1 | <i>Desmodesmus subspicatus</i> | OECD 201 (EU C.3) | RM000517/ RM002677 BASF EU RSDS 2021 |

Aquatic short-term toxicity - marine species

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (days) |
|-----------------------|----------|-------------------|---------|--------|----------------------|
| sodium carbonate | | No data available | | | |
| disodium metasilicate | | No data | | | |

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| | | | | | |
|--|--|-------------------|--|--|--|
| | | available | | | |
| disodium disilicate | | No data available | | | |
| sodium dichloroisocyanurate, dihydrate | | No data available | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | No data available | | | |

Impact on sewage plants - toxicity to bacteria

| Ingredient(s) | Endpoint | Value (mg/l) | Inoculum | Method | Exposure time |
|--|------------------|-------------------|------------------|------------------|---------------|
| sodium carbonate | | No data available | | | |
| disodium metasilicate | EC ₅₀ | > 100 | Activated sludge | Method not given | 3 hour(s) |
| disodium disilicate | | No data available | | | |
| sodium dichloroisocyanurate, dihydrate | EC ₅₀ | 51 | | OECD 209 | 3 hour(s) |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | 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 carbonate | | No data available | | | | |
| disodium metasilicate | | No data available | | | | |
| disodium disilicate | NOEC | 348 | <i>Brachydanio rerio</i> | Method not given | 96 hour(s) | |
| sodium dichloroisocyanurate, dihydrate | NOEC | 1000 | <i>Oncorhynchus mykiss</i> | OECD 215 | 28 day(s) | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | No data available | | | | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|--|----------|-------------------|----------------------|------------------|---------------|------------------|
| sodium carbonate | | No data available | | | | |
| disodium metasilicate | | No data available | | | | |
| disodium disilicate | | No data available | | | | |
| sodium dichloroisocyanurate, dihydrate | NOEC | 160 | <i>Daphnia magna</i> | OECD 211 | 21 day(s) | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | NOEC | > 0.1-1 | <i>Daphnia magna</i> | Method not given | 21 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 carbonate | | No data available | | | | |
| disodium metasilicate | | No data available | | | | |
| disodium disilicate | | No data available | | | | |
| sodium dichloroisocyanurate, dihydrate | | No data available | | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | 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 carbonate | | No data available | | | | |
| sodium dichloroisocyanurate, dihydrate | NOEC | 1000 | <i>Eisenia fetida</i> | OECD 207 | 14 | |

Terrestrial toxicity - plants, if available:

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

Terrestrial toxicity - birds, if available:

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

Abiotic degradation - hydrolysis, if available:

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

Abiotic degradation - other processes, if available:

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

Biodegradation

Ready biodegradability - aerobic conditions

| Ingredient(s) | Inoculum | Analytical method | DT ₅₀ | Method | Evaluation |
|--|--------------------------|----------------------------|--------------------|-----------|--------------------------------------|
| sodium carbonate | | | | | Not applicable (inorganic substance) |
| disodium metasilicate | | | | | Not applicable (inorganic substance) |
| disodium disilicate | | | | | Not applicable (inorganic substance) |
| sodium dichloroisocyanurate, dihydrate | | Oxygen depletion | 2 % in 28d day(s) | OECD 301D | Not readily biodegradable. |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | Activated sludge, aerobe | CO ₂ production | > 60% in 28 day(s) | OECD 301B | Readily biodegradable |

Ready biodegradability - anaerobic and marine conditions, if available:

| Ingredient(s) | Medium & Type | Analytical method | DT ₅₀ | Method | Evaluation |
|--|---------------|-------------------|------------------|--------|-------------------|
| sodium carbonate | | | | | No data available |
| sodium dichloroisocyanurate, dihydrate | | | | | No data available |

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Degradation in relevant environmental compartments, if available:

| Ingredient(s) | Medium & Type | Analytical method | DT ₅₀ | Method | Evaluation |
|--|---------------|-------------------|------------------|--------|-------------------|
| sodium carbonate | | | | | No data available |
| sodium dichloroisocyanurate, dihydrate | | | | | No data available |

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

| Ingredient(s) | Value | Method | Evaluation | Remark |
|--|-------------------|------------------|-----------------------------------|--------|
| sodium carbonate | No data available | | No bioaccumulation expected | |
| disodium metasilicate | No data available | | | |
| disodium disilicate | No data available | | Low potential for bioaccumulation | |
| sodium dichloroisocyanurate, dihydrate | -0.0056 | Method not given | No bioaccumulation expected | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | | | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|--|-------------------|---------|--------|-----------------------------|--------|
| sodium carbonate | No data available | | | No bioaccumulation expected | |
| disodium metasilicate | No data available | | | | |
| disodium disilicate | No data available | | | | |
| sodium dichloroisocyanurate, dihydrate | No data available | | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | 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 carbonate | No data available | | | | Potential for mobility in soil, soluble in water |
| disodium metasilicate | No data available | | | | |
| disodium disilicate | No data available | | | | |
| sodium dichloroisocyanurate, dihydrate | No data available | | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | 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.

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 or ID number: 3253

14.2 UN proper shipping name:

Disodium trioxosilicate , mixture

Disodium trioxosilicate , mixture

14.3 Transport hazard class(es):

Transport hazard class (and subsidiary risks): 8

14.4 Packing group: III

14.5 Environmental hazards:

Environmentally hazardous: No

Marine pollutant: No

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: C6

Tunnel restriction code: (E)

Hazard identification number: 80

IMO/IMDG

EmS: F-A, S-B

The product has been classified, labelled and packaged in accordance with the requirements of ADR and the provisions of the IMDG Code. Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations:

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

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

Ingredients according to EC Detergents Regulation 648/2004

| | |
|--|-----------|
| phosphates | 15 - 30 % |
| polycarboxylates, 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) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Seveso - Classification: Not classified

15.2 Chemical safety assessment

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

SECTION 16: Other information

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

Suma Revoflow Metal P7

SDS code: MS1000350

Version: 05.0

Revision: 2024-03-02

Reason for revision:

Overall design adjusted in accordance with Amendment 2020/878, Annex II of Regulation (EC) No 1907/2006, This data sheet contains changes from the previous version in section(s):, 2, 4, 9, 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.
- 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.
- H412 - Harmful to aquatic life with long lasting effects.
- EUH031 - Contact with acids liberates toxic gas.

End of Safety Data Sheet