

Suma Revoflow Clear A11

Revision: 2025-01-28

Version: 05.0

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

1.1 Product identifier

Trade name: Suma Revoflow Clear A11

UFI: QDQ5-F0K6-D00A-APD2

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

Product use: Dish washing rinse aid.
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_2
AISE_SWED_PW_4_1

1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, De Corridor 4, 3621ZB Breukelen [Maarssebroeksedijk 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

Eye irritation, Category 2 (H319)

2.2 Label elements



Signal word: Warning.

Hazard statements:

H319 - Causes serious eye irritation.

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 |
|-------------------------|-----------|-------------|--------------|--|-------|----------------|
| alkyl alcohol alkoxyate | [4] | 111905-53-4 | [4] | Acute toxicity - Oral, Category 4 (H302) Eye irritation, Category 2 (H319) Chronic aquatic toxicity, Category 3 (H412) | | 10-20 |
| Citric acid | 201-069-1 | - | [1] | Specific target organ toxicity - Single exposure, | | 3-10 |

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| | | | | | |
|--|-----------|-------------|----------------------|--|------|
| | | | | Category 3 (H335) Eye irritation, Category 2 (H319) | |
| 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) | 3-10 |
| sodium cumenesulphonate | 239-854-6 | 15763-76-5 | 01-211948941 1-37 | Eye irritation, Category 2 (H319) | 1-3 |

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

ATE, if available, are listed in section 11.

[1] Exempted: ionic mixture. See Regulation (EC) No 1907/2006, Annex V, paragraph 3 and 4. This salt is potentially present, based on calculation, and included for classification and labelling purposes only. Each starting material of the ionic mixture is registered, as required.

[4] Exempted: polymer. See Article 2(9) 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. Get medical attention or advice if you feel unwell. |
| 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: | No known effects or symptoms in normal use. |
| 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

Wear eye/face protection.

6.2 Environmental precautions

Dilute with plenty of water. Do not allow to enter drainage system, surface or ground water.

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:

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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 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.

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 |
|--|----------------------------|-------------------------------|---------------------------|------------------------------|
| alkyl alcohol alkoxyolate | No data available | No data available | No data available | No data available |
| Citric acid | - | - | - | - |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | - | - | - | 3.8 |

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) |
|--|----------------------------|--|---------------------------|---|
| alkyl alcohol alkoxyolate | No data available | No data available | No data available | No data available |
| Citric acid | No data available | - | No data available | - |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | - | - | - | 136.25 |

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) |
|--|----------------------------|--|---------------------------|---|
| alkyl alcohol alkoxyolate | No data available | No data available | No data available | No data available |
| Citric acid | No data available | - | No data available | - |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | - | - | - | 68.1 |

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 |
|--|----------------------------|-------------------------------|---------------------------|------------------------------|
| alkyl alcohol alkoxyolate | No data available | No data available | No data available | No data available |
| Citric acid | - | - | - | - |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | - | - | - | 26.9 |

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 |
|--|----------------------------|-------------------------------|---------------------------|------------------------------|
| alkyl alcohol alkoxyolate | No data available | No data available | No data available | No data available |
| Citric acid | - | - | - | - |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | - | - | - | 6.6 |

Environmental exposure

Environmental exposure - PNEC

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| Ingredient(s) | Surface water, fresh (mg/l) | Surface water, marine (mg/l) | Intermittent (mg/l) | Sewage treatment plant (mg/l) |
|--|-----------------------------|------------------------------|---------------------|-------------------------------|
| alkyl alcohol alkoxyate | No data available | No data available | No data available | No data available |
| Citric acid | 0.44 | 0.044 | - | > 1000 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | 0.23 | 0.023 | 2.3 | 100 |

Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m ³) |
|--|------------------------------|--------------------------|-------------------|--------------------------|
| alkyl alcohol alkoxyate | No data available | No data available | No data available | No data available |
| Citric acid | 34.6 | 3.46 | 33.1 | - |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | 0.862 | 0.0862 | 0.037 | - |

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_2 | 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: 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.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (% w/w): 0.05

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: Liquid
Colour: Clear , Yellow

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Odour: Product specific**Odour threshold:** Not applicable**Melting point/freezing point (°C):** Not determined**Initial boiling point and boiling range (°C):** Not determined

Not relevant to classification of this product

See substance data

Substance data, boiling point

| Ingredient(s) | Value (°C) | Method | Atmospheric pressure (hPa) |
|--|-------------------|------------------|----------------------------|
| alkyl alcohol alkoxylate | No data available | | |
| Citric acid | No data available | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | > 250 | Method not given | |
| sodium cumenesulphonate | No data available | | |

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

Substance data, flammability or explosive limits, if available:

Method / remark**Autoignition temperature:** Not determined**Decomposition temperature:** Not applicable.**pH:** = < 2 (neat)**Dilution pH:** ≈ 4 (0.05 %)**Kinematic viscosity:** Not determined**Solubility in / Miscibility with water:** Fully miscible

ISO 4316

ISO 4316

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|--|-------------------|------------------|------------------|
| alkyl alcohol alkoxylate | No data available | | |
| Citric acid | 1630 | Method not given | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | Insoluble | | |
| sodium cumenesulphonate | 493 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) |
|--|-------------------|------------------|------------------|
| alkyl alcohol alkoxylate | No data available | | |
| Citric acid | No data available | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | < 10 | Method not given | 20 |
| sodium cumenesulphonate | No data available | | |

Method / remark**Relative density:** ≈ 1.04 (20 °C)**Relative vapour density:** No data available.**Particle characteristics:** No data available.

OECD 109 (EU A.3)

Not relevant to classification of this product

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.

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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

Keep away from products containing chlorine-based bleaching agents or sulphites.

10.6 Hazardous decomposition products

None known under normal storage and use conditions.

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: Not corrosive to skin **Method:** OECD 431 (EU B.40 bis), Episkin

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) |
|--|------------------|---------------|---------|------------------|-------------------|------------------|
| alkyl alcohol alkoxyolate | LD ₅₀ | ≥ 300-2000 | Rat | Method not given | | Not established |
| Citric acid | LD ₅₀ | 5400-11700 | Rat | Method not given | | Not established |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | LD ₅₀ | > 2000 | Rat | Method not given | | Not established |
| sodium cumenesulphonate | LD ₅₀ | > 7000 | Rat | Method not given | | Not established |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) | ATE Dermal (mg/kg) |
|--|------------------|-------------------|---------|------------------|-------------------|--------------------|
| alkyl alcohol alkoxyolate | | No data available | | | | Not established |
| Citric acid | LD ₅₀ | > 2000 | Rat | Method not given | | Not established |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | No data available | | | | Not established |
| sodium cumenesulphonate | LD ₅₀ | > 2000 | Rabbit | Method not given | | Not established |

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--|------------------|----------------------------------|---------|-------------|-------------------|
| alkyl alcohol alkoxyolate | | No data available | | | |
| Citric acid | | No data available | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | No data available | | | |
| sodium cumenesulphonate | LC ₅₀ | > 5 (mist) No mortality observed | Rat | Read across | 3.87 |

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) |
|--|-------------------------------|-------------------------------|---------------------------------|------------------------------|
| alkyl alcohol alkoxyolate | Not established | Not established | Not established | Not established |
| Citric acid | Not established | Not established | Not established | Not established |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | Not established | Not established | Not established | Not established |
| sodium cumenesulphonate | Not established | Not established | Not established | Not established |

Irritation and corrosivity

Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|---------------|---------|-------------------|---------------|
| alkyl alcohol alkoxylate | Mild irritant | Rabbit | OECD 404 (EU B.4) | |
| Citric acid | Not irritant | Rabbit | OECD 404 (EU B.4) | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | Irritant | Rabbit | Draize test | |
| sodium cumenesulphonate | Not irritant | Rabbit | OECD 404 (EU B.4) | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|------------------------------|---------|-------------------|---------------|
| alkyl alcohol alkoxylate | Irritant | Rabbit | OECD 405 (EU B.5) | |
| Citric acid | Severe damage Irritant | Rabbit | OECD 405 (EU B.5) | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | Not corrosive or irritant | Rabbit | Draize test | |
| sodium cumenesulphonate | Irritant | Rabbit | OECD 405 (EU B.5) | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|-------------------|---------|--------|---------------|
| alkyl alcohol alkoxylate | No data available | | | |
| Citric acid | No data available | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | | | |
| sodium cumenesulphonate | No data available | | | |

Sensitisation

Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|--|-------------------|------------|-----------------------------|-------------------|
| alkyl alcohol alkoxylate | No data available | | | |
| Citric acid | Not sensitising | Guinea pig | Method not given | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | | | |
| sodium cumenesulphonate | Not sensitising | Guinea pig | OECD 406 (EU B.6) / GPMT | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|--|-------------------|---------|--------|---------------|
| alkyl alcohol alkoxylate | No data available | | | |
| Citric acid | No data available | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | | | |
| sodium cumenesulphonate | 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) |
|--|---|-------------------|---|--------------------|
| alkyl alcohol alkoxylate | No data available | | No data available | |
| Citric acid | No data available | | No evidence of genotoxicity, negative test results | Method not given |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | | No data available | |
| sodium cumenesulphonate | No evidence for mutagenicity, negative test results | Method not given | No evidence for mutagenicity, negative test results | OECD 474 (EU B.12) |

Carcinogenicity

| Ingredient(s) | Effect |
|--|--|
| alkyl alcohol alkoxylate | No data available |
| Citric acid | No evidence for carcinogenicity, negative test results |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available |
| sodium cumenesulphonate | 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 |
|-------------------------------|----------|-----------------|--------------------|---------|--------|---------------|---------------------------------------|
| alkyl alcohol alkoxylate | | | No data available | | | | |
| Citric acid | | | No data available | | | | No evidence for reproductive toxicity |
| Alcohols, C12-15-branched and | | | No data available | | | | |

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| | | | | | | | |
|----------------------------------|-------|---------------------|-------|-----|--------------------|--|--|
| linear, ethoxylated propoxylated | | | | | | | |
| sodium cumenesulphonate | NOAEL | Teratogenic effects | > 936 | Rat | Non guideline test | | No known significant effects or critical hazards |

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 |
|--|----------|--------------------|---------|--------------------|----------------------|--------------------------------------|
| alkyl alcohol alkoxylate | | No data available | | | | |
| Citric acid | | No data available | | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | No data available | | | | |
| sodium cumenesulphonate | NOAEL | 763 - 3534 | Rat | OECD 408 (EU B.26) | | 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 |
|--|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| alkyl alcohol alkoxylate | | No data available | | | | |
| Citric acid | | No data available | | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | No data available | | | | |
| sodium cumenesulphonate | | 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 |
|--|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| alkyl alcohol alkoxylate | | No data available | | | | |
| Citric acid | | No data available | | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | No data available | | | | |
| sodium cumenesulphonate | | 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 |
|--|----------------|----------|--------------------|---------|--------|---------------|--------------------------------------|--------|
| alkyl alcohol alkoxylate | | | No data available | | | | | |
| Citric acid | | | No data available | | | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | | No data available | | | | | |
| sodium cumenesulphonate | | | No data available | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|--|-------------------|
| alkyl alcohol alkoxylate | No data available |
| Citric acid | No data available |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available |
| sodium cumenesulphonate | Not applicable |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|--|-------------------|
| alkyl alcohol alkoxylate | No data available |
| Citric acid | No data available |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available |
| sodium cumenesulphonate | Not applicable |

Aspiration hazard

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

Potential adverse health effects and symptoms

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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) |
|--|------------------|--------------|-----------------------|--------------------|-------------------|
| alkyl alcohol alkoxylate | LC ₅₀ | > 1 - 10 | <i>Leuciscus idus</i> | Method not given | 96 |
| Citric acid | LC ₅₀ | 440 | <i>Leuciscus idus</i> | Method not given | 48 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | LC ₅₀ | > 1-10 | <i>Fish</i> | OECD 203 (EU C.1) | 96 |
| sodium cumenesulphonate | LC ₅₀ | > 1000 | <i>Fish</i> | EPA-OPPTS 850.1075 | 96 |

Aquatic short-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--|------------------|--------------|-----------------------------|-------------------|-------------------|
| alkyl alcohol alkoxylate | EC ₅₀ | > 1 - 10 | <i>Daphnia magna Straus</i> | Method not given | 48 |
| Citric acid | EC ₅₀ | 1535 | <i>Daphnia magna Straus</i> | Method not given | 24 |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | EC ₅₀ | ≤ 1 | <i>Daphnia magna Straus</i> | OECD 202 (EU C.2) | 48 |
| sodium cumenesulphonate | EC ₅₀ | > 1000 | <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) |
|--|--------------------------------|-------------------|--------------------------------|--------------------|---|
| alkyl alcohol alkoxylate | | No data available | | | |
| Citric acid | LC ₅₀ | 425 | <i>Scenedesmus quadricauda</i> | Method not given | 168 |
| 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 |
| sodium cumenesulphonate | E _b C ₅₀ | > 230 | <i>Not specified</i> | EPA OPPTS 850.5400 | 96 |

Aquatic short-term toxicity - marine species

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (days) |
|--|----------|-------------------|---------|--------|----------------------|
| alkyl alcohol alkoxylate | | No data available | | | |
| Citric acid | | No data available | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | No data available | | | |
| sodium cumenesulphonate | | No data available | | | |

Impact on sewage plants - toxicity to bacteria

| Ingredient(s) | Endpoint | Value (mg/l) | Inoculum | Method | Exposure time |
|--|--------------------------------|-------------------|---------------------------|------------------|---------------|
| alkyl alcohol alkoxylate | EC ₁₀ | > 1000 | <i>Activated sludge</i> | DEV-L2 | |
| Citric acid | EC ₅₀ | > 10000 | <i>Pseudomonas putida</i> | Method not given | 16 hour(s) |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | No data available | | | |
| sodium cumenesulphonate | E _r C ₅₀ | > 1000 | <i>Bacteria</i> | OECD 209 | 3 hour(s) |

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Aquatic long-term toxicity

Aquatic long-term toxicity - fish

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|--|----------|-------------------|---------|--------|---------------|------------------|
| alkyl alcohol alkoxyate | | No data available | | | | |
| Citric acid | | No data available | | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | No data available | | | | |
| sodium cumenesulphonate | | No data available | | | | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|--|----------|-------------------|----------------------|------------------|---------------|------------------|
| alkyl alcohol alkoxyate | NOEC | > 0.1 - 1 | <i>Daphnia magna</i> | OECD 202 | 21 day(s) | |
| Citric acid | | No data available | | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | NOEC | > 0.1-1 | <i>Daphnia magna</i> | Method not given | 21 day(s) | |
| sodium cumenesulphonate | | 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 |
|--|----------|---------------------------|---------|--------|----------------------|------------------|
| alkyl alcohol alkoxyate | | No data available | | | | |
| Citric acid | | No data available | | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | | No data available | | | | |
| sodium cumenesulphonate | | 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 |
|---------------|----------|-----------------------|---------|--------|----------------------|------------------|
| Citric acid | | No data available | | | | |

Terrestrial toxicity - plants, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|---------------|----------|-----------------------|---------|--------|----------------------|------------------|
| Citric acid | | No data available | | | | |

Terrestrial toxicity - birds, if available:

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure time (days) | Effects observed |
|---------------|----------|-------------------|---------|--------|----------------------|------------------|
| Citric acid | | No data available | | | | |

Terrestrial toxicity - beneficial insects, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|---------------|----------|-----------------------|---------|--------|----------------------|------------------|
| Citric acid | | No data available | | | | |

Terrestrial toxicity - soil bacteria, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|---------------|----------|-----------------------|---------|--------|----------------------|------------------|
| Citric acid | | No data available | | | | |

12.2 Persistence and degradability

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Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

| Ingredient(s) | Half-life time | Method | Evaluation | Remark |
|---------------|-------------------|--------|------------|--------|
| Citric acid | No data available | | | |

Abiotic degradation - hydrolysis, if available:

| Ingredient(s) | Half-life time in fresh water | Method | Evaluation | Remark |
|---------------|-------------------------------|--------|------------|--------|
| Citric acid | No data available | | | |

Abiotic degradation - other processes, if available:

| Ingredient(s) | Type | Half-life time | Method | Evaluation | Remark |
|---------------|------|-------------------|--------|------------|--------|
| Citric acid | | No data available | | | |

Biodegradation

Ready biodegradability - aerobic conditions

| Ingredient(s) | Inoculum | Analytical method | DT ₅₀ | Method | Evaluation |
|--|--------------------------|----------------------------|-------------------------|----------------------------|-----------------------|
| alkyl alcohol alkoxylate | Activated sludge, aerobe | CO ₂ production | > 60 % in 28 day(s) | OECD 301B | Readily biodegradable |
| Citric acid | | | 97 % in 28 day(s) | Method not given OECD 301B | 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 |
| sodium cumenesulphonate | | CO ₂ production | 103 - 109% 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 |
|---------------|---------------|-------------------|------------------|--------|-------------------|
| Citric acid | | | | | No data available |

Degradation in relevant environmental compartments, if available:

| Ingredient(s) | Medium & Type | Analytical method | DT ₅₀ | Method | Evaluation |
|---------------|---------------|-------------------|------------------|--------|-------------------|
| Citric acid | | | | | No data available |

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

| Ingredient(s) | Value | Method | Evaluation | Remark |
|--|-------------------|------------------|-----------------------------|--------|
| alkyl alcohol alkoxylate | No data available | | | |
| Citric acid | -1.72 | | No bioaccumulation expected | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | | | |
| sodium cumenesulphonate | -1.1 | Method not given | No bioaccumulation expected | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|--|-------------------|---------|--------|------------|--------|
| alkyl alcohol alkoxylate | No data available | | | | |
| Citric acid | No data available | | | | |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | | | | |
| sodium cumenesulphonate | No data available | | | | |

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

| Ingredient(s) | Adsorption coefficient Log K _{oc} | Desorption coefficient Log K _{oc} (des) | Method | Soil/sediment type | Evaluation |
|--|--|--|--------|--------------------|--|
| alkyl alcohol alkoxylate | No data available | | | | |
| Citric acid | No data available | | | | Potential for mobility in soil, soluble in water |
| Alcohols, C12-15-branched and linear, ethoxylated propoxylated | No data available | | | | |
| sodium cumenesulphonate | 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.

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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.

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

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)
- 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

non-ionic surfactants

5 - 15 %

polycarboxylates

< 5 %

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

Comah - classification: Not classified

15.2 Chemical safety assessment

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

SECTION 16: Other information

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

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Suma Revoflow Clear A11**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
- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.
- H400 - Very toxic to aquatic life.
- H412 - Harmful to aquatic life with long lasting effects.

End of Safety Data Sheet