



Safety Data Sheet

According to Regulation (EC) No 1907/2006

Suma Maro A8.8

Revision: 2014-02-06

Version: 06

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

1.1 Product identifier

Trade name: Suma Maro A8.8

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

Identified uses:

For professional use only.

AISE-P204 - Rinse aid. Automatic process

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

1.3 Details of the supplier of the safety data sheet

Diversey Ltd

Contact details

Weston Favell Centre, Northampton NN3 8PD, United Kingdom

Tel: 01604 405311, Fax: 01604 406809

Regulatory Email: MSDSinfoUK@sealedair.com

1.4 Emergency telephone number

For medical or environmental emergency only:

call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product does not meet the criteria for classification in accordance with Directive 1999/45/EC and corresponding national legislation.

2.2 Label elements

Further indications on the label:

Safety data sheet available for professional user on request.

2.3 Other hazards

No other hazards known. The product does not meet the criteria for PBT or vPvB in accordance with Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

| Ingredient(s) | EC number | CAS number | REACH number | Classification | Classification (EC) 1272/2008 | Notes | Weight percent |
|--------------------------|-----------|-------------|------------------|-----------------|--|-------|----------------|
| alkyl alcohol alkoxylate | Polymer* | 111905-53-4 | [4] | Xi;R36/38 | Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) | | 3-10 |
| citric acid | 201-069-1 | 77-92-9 | [1] | Xi;R36 | Eye Irrit. 2 (H319) | | 3-10 |
| alkyl alcohol alkoxylate | Polymer* | 111905-54-5 | [4] | Xi;R38 N;R50 | Aquatic Acute 1 (H400) Skin Irrit. 2 (H315) | | 1-3 |
| sodium cumenesulphonate | 248-983-7 | 28348-53-0 | 01-2119489411-37 | Xi;R36 | Eye Irrit. 2 (H319) | | 1-3 |

* Polymer.

For the full text of the R, H and EUH phrases mentioned in this Section, see Section 16.

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

[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.

[2] Exempted: included in Annex IV of Regulation (EC) No 1907/2006.

[3] Exempted: Annex V of Regulation (EC) No 1907/2006.

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

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SECTION 4: First aid measures**4.1 Description of first aid measures**

| | |
|--|--|
| Inhalation | Remove from source of exposure. If discomfort persists, obtain medical attention. |
| Skin contact: | Not required under normal use. Rinse with plenty of water. If irritation develops get medical attention. |
| Eye contact: | Wash off immediately with plenty of water. Get medical attention. |
| Ingestion: | Remove material from mouth. Immediately drink 1-2 glasses of water or milk. If large amounts swallowed or symptoms develop, get medical attention. |
| 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: | Unlikely to be irritant or harmful in normal use. |
| Skin contact: | Unlikely to be irritant in normal use. |
| Eye contact: | Unlikely to be irritant in normal use. |
| Ingestion: | Unlikely to be harmful unless excessive amount ingested. |
| Sensitisation: | No known effects. |

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

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

5.2 Special hazards arising from the substance or mixture

No special hazards known.

5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

No special measures required.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).

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****Advice on safe handling:**

Handle in accordance with good industrial hygiene and safety practice. Do not mix with other products unless advised by Diversey. For advice on general occupational hygiene see subsection 8.2. For environmental exposure controls see subsection 8.2. For incompatible materials see subsection 10.5.

Prevention of fire and explosion:

No special precautions required.

7.2 Conditions for safe storage, including any incompatibilities**Requirements for storage rooms / facilities:**

In accordance with local and national regulations.

Combined storage in storage rooms / facilities:

In accordance with local and national regulations. For incompatible materials see subsection 10.5.

Basic storage conditions

Store in original container. For conditions to avoid see subsection 10.4.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

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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 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 alkoxylate | No data available | No data available | No data available | No data available |
| citric acid | No data available | No data available | No data available | No data available |
| alkyl alcohol alkoxylate | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | No data available | No data available | No data available | No data available |

DNEL 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 alkoxylate | No data available | No data available | No data available | No data available |
| citric acid | No data available | No data available | No data available | No data available |
| alkyl alcohol alkoxylate | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | No data available | No data available | No data available | No data available |

DNEL 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 alkoxylate | No data available | No data available | No data available | No data available |
| citric acid | No data available | No data available | No data available | No data available |
| alkyl alcohol alkoxylate | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | No data available | No data available | No data available | No data available |

DNEL 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 alkoxylate | No data available | No data available | No data available | No data available |
| citric acid | No data available | No data available | No data available | No data available |
| alkyl alcohol alkoxylate | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | No data available | No data available | No data available | No data available |

DNEL 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 alkoxylate | No data available | No data available | No data available | No data available |
| citric acid | No data available | No data available | No data available | No data available |
| alkyl alcohol alkoxylate | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | 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) |
|--------------------------|-----------------------------|------------------------------|---------------------|-------------------------------|
| alkyl alcohol alkoxylate | No data available | No data available | No data available | No data available |
| citric acid | 0.44 | 0.044 | No data available | > 1000 |
| alkyl alcohol alkoxylate | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | 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) |
|--------------------------|------------------------------|--------------------------|-------------------|--------------------------|
| alkyl alcohol alkoxylate | No data available | No data available | No data available | No data available |
| citric acid | 34.6 | 3.46 | 33.1 | No data available |
| alkyl alcohol alkoxylate | No data available | No data available | No data available | No data available |
| sodium cumenesulphonate | No data available | No data available | No data available | No data available |

8.2 Exposure controls

General health and safety measures

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes.

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The following information applies for the uses indicated in subsection 1.2.
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: No special requirements under normal use conditions.

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.
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, Green
Odour: Product specific
Odour threshold: Not applicable
pH: ≈ 2 (neat)
Melting point/freezing point (°C): Not determined
Initial boiling point and boiling range (°C): Not determined

Substance data, boiling point

| Ingredient(s) | Value (°C) | Method | Atmospheric pressure (hPa) |
|--------------------------|-------------------|------------------|----------------------------|
| alkyl alcohol alkoxylate | No data available | | |
| citric acid | No data available | | |
| alkyl alcohol alkoxylate | > 250 | Method not given | |
| sodium cumenesulphonate | > 100 | Method not given | |

Method / remark

Flash point (°C): Not applicable.
Sustained combustion: Not determined
Evaporation rate: Not determined
Flammability (solid, gas): Not determined
Upper/lower flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

Method / remark

Vapour pressure: Not determined

Substance data, vapour pressure

| Ingredient(s) | Value (Pa) | Method | Temperature (°C) |
|--------------------------|-------------------|------------------|------------------|
| alkyl alcohol alkoxylate | No data available | | |
| citric acid | No data available | | |
| alkyl alcohol alkoxylate | < 10 | Method not given | 20 |
| sodium cumenesulphonate | No data available | | |

Method / remark

Vapour density: Not determined
Relative density: 1.04 g/cm³ (20°C)
Solubility in / Miscibility with Water: Fully miscible

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 | |
| alkyl alcohol alkoxylate | Insoluble | Method not given | |
| sodium cumenesulphonate | Soluble | | |

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

Method / remark

Autoignition temperature: Not determined
Decomposition temperature: Not determined
Viscosity: Not determined
Explosive properties: Not explosive.
Oxidising properties: Not oxidising.

9.2 Other information

Surface tension (N/m): Not determined
Corrosion to metals (according to IMDG/ADR regulation): Not corrosive

UN Manual of Tests and Criteria, section 37

Substance data, dissociation constant, if 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 alkali.

10.6 Hazardous decomposition products

None known under normal storage and use conditions.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Mixtures**

No test data is available on the mixture

Result: Not corrosive

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) |
|---------------------------|------------------|---------------|---------|------------------|-------------------|
| alkyl alcohol alkoxyolate | LD ₅₀ | > 2000 | Rat | Method not given | |
| citric acid | LD ₅₀ | 3000 | Rat | Method not given | |
| alkyl alcohol alkoxyolate | LD ₅₀ | > 2000 | Rat | Method not given | |
| sodium cumenesulphonate | LD ₅₀ | > 7000 | Rat | Method not given | |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|---------------------------|------------------|-------------------|---------|------------------|-------------------|
| alkyl alcohol alkoxyolate | | No data available | | | |
| citric acid | LD ₅₀ | > 2000 | Rat | Method not given | |
| alkyl alcohol alkoxyolate | | No data available | | | |
| sodium cumenesulphonate | LD ₅₀ | > 2000 | Rabbit | Method not given | |

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 | | | |
| alkyl alcohol alkoxyolate | | No data available | | | |
| sodium cumenesulphonate | LC ₅₀ | > 770 | Rat | Method not given | 4 |

Irritation and corrosivity

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Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--------------------------|-------------------|---------|-------------------|---------------|
| alkyl alcohol alkoxylate | Irritant | Rabbit | OECD 404 (EU B.4) | |
| citric acid | Not irritant | Rabbit | OECD 404 (EU B.4) | |
| alkyl alcohol alkoxylate | Irritant | Rabbit | Draize test | |
| sodium cumenesulphonate | No data available | | | |

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 | Rabbit | OECD 405 (EU B.5) | |
| alkyl alcohol alkoxylate | Not corrosive or irritant | Rabbit | Method not given | |
| sodium cumenesulphonate | Irritant | | Method not given | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--------------------------|-------------------|---------|--------|---------------|
| alkyl alcohol alkoxylate | No data available | | | |
| citric acid | No data available | | | |
| alkyl alcohol alkoxylate | 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 | |
| alkyl alcohol alkoxylate | 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 | | | |
| alkyl alcohol alkoxylate | No data available | | | |
| sodium cumenesulphonate | No data available | | | |

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 | | | | |
| alkyl alcohol alkoxylate | | No data available | | | | |
| sodium cumenesulphonate | NOAEL | 763 - 3534 | | OECD 408 (EU B.26) | 90 | |

Sub-chronic dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg bw/d) | Species | Method | Exposure time (days) | Specific effects and organs affected |
|--------------------------|----------|--------------------|---------|------------------|----------------------|--------------------------------------|
| alkyl alcohol alkoxylate | | No data available | | | | |
| citric acid | | No data available | | | | |
| alkyl alcohol alkoxylate | | No data available | | | | |
| sodium cumenesulphonate | NOAEL | 440 | Mouse | Method not given | 90 | |

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 | | | | |
| alkyl alcohol alkoxylate | | No data available | | | | |
| sodium cumenesulphonate | | No data available | | | | |

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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 | | | | | |
| alkyl alcohol alkoxylate | | | No data available | | | | | |
| sodium cumenesulphonate | Dermal | NOAEL | 727 | Mouse | Method not given | 24 month(s) | | |

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mixture data:

Based on available data, the classification criteria are not met.

Substance data, where relevant and available:

Carcinogenicity

| Ingredient(s) | Effect |
|--------------------------|--|
| alkyl alcohol alkoxylate | No data available |
| citric acid | No evidence for carcinogenicity, negative test results |
| alkyl alcohol alkoxylate | No data available |
| sodium cumenesulphonate | No evidence for carcinogenicity, negative test results |

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 |
| alkyl alcohol alkoxylate | 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) |

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 |
| alkyl alcohol alkoxylate | | | No data available | | | | |
| sodium cumenesulphonate | NOAEL | Teratogenic effects | > 3000 | Rat | Non guideline test | | |

Potential adverse health effects and symptoms

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

SECTION 12: Ecological information**12.1 Toxicity**

Mixtures

No test 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 | Leuciscus idus | Method not given | 48 |
| citric acid | LC ₅₀ | 440 | Leuciscus idus | Method not given | 48 |
| alkyl alcohol alkoxylate | LC ₅₀ | 1 - 10 | Leuciscus idus | Method not given | 96 |
| sodium cumenesulphonate | LC ₅₀ | > 1000 | Fish | EPA-OPPTS | 96 |

Aquatic short-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--------------------------|------------------|--------------|----------------------|------------------|-------------------|
| alkyl alcohol alkoxylate | EC ₅₀ | 1 - 10 | Not specified | Method not given | 48 |
| citric acid | EC ₅₀ | 1535 | Daphnia magna Straus | Method not given | 24 |
| alkyl alcohol alkoxylate | EC ₅₀ | 1 | Not specified | Method not given | 48 |
| sodium cumenesulphonate | EC ₅₀ | > 1000 | Daphnia | EPA-OPPTS | 48 |

Aquatic short-term toxicity - algae

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| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--------------------------|--------------------------------|-------------------|-------------------------|------------------|-------------------|
| alkyl alcohol alkoxylate | | No data available | | | |
| citric acid | LC ₅₀ | 425 | Scenedesmus quadricauda | Method not given | 168 |
| alkyl alcohol alkoxylate | EC ₅₀ | 0.1 - 1 | Not specified | Method not given | 72 |
| sodium cumenesulphonate | E _r C ₅₀ | 310 | Not specified | | 72 |

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 | | | |
| alkyl alcohol alkoxylate | | 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 | Activated sludge | DEV-L2 | |
| citric acid | EC ₅₀ | > 10000 | Pseudomonas putida | Method not given | 16 hour(s) |
| alkyl alcohol alkoxylate | | 1000 | Activated sludge | DIN EN ISO 8192-OECD 209-88/302/EEC | |
| sodium cumenesulphonate | E _r C ₅₀ | > 1000 | Bacteria | OECD 209 | 3 hour(s) |

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|--------------------------|----------|-------------------|---------|--------|---------------|------------------|
| alkyl alcohol alkoxylate | | No data available | | | | |
| citric acid | | No data available | | | | |
| alkyl alcohol alkoxylate | | 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 alkoxylate | | No data available | | | | |
| citric acid | | No data available | | | | |
| alkyl alcohol alkoxylate | NOEC | 0.25 | Daphnia magna | 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 alkoxylate | | No data available | | | | |
| citric acid | | No data available | | | | |
| alkyl alcohol alkoxylate | | No data available | | | | |
| sodium cumenesulphonate | | No data available | | | | |

Terrestrial toxicity

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

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Terrestrial toxicity - soil bacteria, if available:

12.2 Persistence and degradability**Abiotic degradation**

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

| Ingredient(s) | Inoculum | Analytical method | DT ₅₀ | Method | Evaluation |
|--------------------------|----------|----------------------------|---------------------|------------------|----------------------------|
| alkyl alcohol alkoxylate | | | > 60 % in 28 day(s) | OECD 301F | Readily biodegradable |
| citric acid | | | 97 % in 28 day(s) | Method not given | Readily biodegradable |
| alkyl alcohol alkoxylate | | CO ₂ production | > 60% in 28 day(s) | OECD 301B | Readily biodegradable |
| sodium cumenesulphonate | | | | | Not readily biodegradable. |

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

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.

12.3 Bioaccumulative potential

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

| Ingredient(s) | Value | Method | Evaluation | Remark |
|--------------------------|-------------------|------------------|-----------------------------------|--------|
| alkyl alcohol alkoxylate | No data available | | | |
| citric acid | -1.72 | | No bioaccumulation expected | |
| alkyl alcohol alkoxylate | No data available | | No bioaccumulation expected | |
| sodium cumenesulphonate | -1.1 | Method not given | Low potential for bioaccumulation | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|--------------------------|-------------------|---------|--------|------------|--------|
| alkyl alcohol alkoxylate | No data available | | | | |
| citric acid | No data available | | | | |
| alkyl alcohol alkoxylate | 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 |
| alkyl alcohol alkoxylate | No data available | | | | Potential for adsorption to soil |
| 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.

12.6 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Waste from residues / unused products:

European Waste Catalogue:

Empty packaging

Recommendation:

Suitable cleaning agents:

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.

20 01 30 - detergents other than those mentioned in 20 01 29.

Dispose of observing national or local regulations.

Water, if necessary with cleaning agent.

SECTION 14: Transport information**ADR, RID, ADN, IMO/IMDG, ICAO/IATA****14.1 UN number:** Non-dangerous goods**14.2 UN proper shipping name:** Non-dangerous goods**14.3 Transport hazard class(es):** Non-dangerous goods**Class:** -**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 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** The product is not transported in bulk tankers.**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Authorisations or restrictions (Regulation (EC) No 1907/2006, Title VII respectively Title VIII):** Not applicable.**Ingredients according to EC Detergents Regulation 648/2004**

non-ionic surfactants

5 - 15%

polycarboxylates

< 5%

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***MSDS code:** MSDS1987**Version:** 06**Revision:** 2014-02-06**Reason for revision:**

Overall design adjusted in accordance with Regulation (EC) No 1907/2006, Annex II

Full text of the R, H and EUH phrases mentioned in section 3:

- R36 - Irritating to eyes.
- R50 - Very toxic to aquatic organisms.
- R38 - Irritating to skin.
- R36/38 - Irritating to eyes and skin.
- H315 - Causes skin irritation.
- H319 - Causes serious eye irritation.
- H400 - Very toxic to aquatic life.

Abbreviations and acronyms:

- AISE - The international Association for Soaps, Detergents and Maintenance Products
- DNEL - Derived No Effect Limit
- EUH - CLP Specific hazard statement
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative

End of Safety Data Sheet