



Bactosol Rinse Aid

Revision: 2020-02-19

Version: 05.0

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

1.1 Product identifier

Trade name: Bactosol Rinse Aid

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 Europe Operations BV, Maarssenbroeksedijk 2, 3542DN Utrecht, The Netherlands

Contact details

Diversey Ltd

Weston Favell Centre, Northampton NN3 8PD, United Kingdom

Tel: 01604 405311, Fax: 01604 406809

Regulatory Email: customerservice.uk@diversey.com

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible)

For medical or environmental emergency only:

call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Eye Irrit. 2 (H319)

2.2 Label elements



Signal word: Warning.

Hazard statements:

H319 - Causes serious eye irritation.

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 | Notes | Weight percent |
|--------------------------|-----------|-------------|------------------|--|-------|----------------|
| alkyl alcohol alkoxylate | [4] | 111905-53-4 | [4] | Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Aquatic Chronic 3 (H412) | | 3-10 |
| citric acid | 201-069-1 | 77-92-9 | 01-2119457026-42 | Eye Irrit. 2 (H319) | | 3-10 |
| sodium cumenesulphonate | 239-854-6 | - | 01-2119489411-37 | Eye Irrit. 2 (H319) | | 1-3 |
| alkyl alcohol alkoxylate | [4] | 120313-48-6 | [4] | Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412) | | 1-3 |

Bactosol Rinse Aid

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

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

[11] Substance of Very High Concern (SVHC)

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. 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**

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

Dyke to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). 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 hands before breaks and at the end of workday. 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.

Bactosol Rinse Aid

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 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 | - | - | - | - |
| sodium cumenesulphonate | No data available | No data available | No data available | 3.8 |
| alkyl alcohol alkoxyolate | - | - | 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 alkoxyolate | No data available | No data available | No data available | No data available |
| citric acid | No data available | - | No data available | - |
| sodium cumenesulphonate | No data available | No data available | No data available | 7.6 |
| alkyl alcohol alkoxyolate | 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 alkoxyolate | No data available | No data available | No data available | No data available |
| citric acid | No data available | - | No data available | - |
| sodium cumenesulphonate | No data available | No data available | No data available | 3.8 |
| alkyl alcohol alkoxyolate | 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 alkoxyolate | No data available | No data available | No data available | No data available |
| citric acid | - | - | - | - |
| sodium cumenesulphonate | No data available | No data available | No data available | 53.6 |
| alkyl alcohol alkoxyolate | 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 alkoxyolate | No data available | No data available | No data available | No data available |
| citric acid | - | - | - | - |
| sodium cumenesulphonate | No data available | No data available | No data available | 13.2 |
| alkyl alcohol alkoxyolate | 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 alkoxyolate | No data available | No data available | No data available | No data available |
| citric acid | 0.44 | 0.044 | - | > 1000 |
| sodium cumenesulphonate | 0.23 | 0.023 | 2.3 | 100 |
| alkyl alcohol alkoxyolate | 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 alkoxyolate | No data available | No data available | No data available | No data available |
| citric acid | 34.6 | 3.46 | 33.1 | - |
| sodium cumenesulphonate | 0.862 | 0.086 | 0.037 | No data available |
| alkyl alcohol alkoxyolate | 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.

Bactosol Rinse Aid

Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

Covering activities such as filling and transfer of product to application equipment, flasks or buckets

Appropriate engineering controls: No special requirements under normal use conditions.
Appropriate organisational controls: Avoid direct contact and/or splashes where possible. Train personnel.

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 166).
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 (%): 0.05

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: 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, Red | |
| Odour: Product specific | |
| Odour threshold: Not applicable | |
| pH < 2 (neat) | ISO 4316 |
| Dilution pH: ≈ 4 (0.05 %) | ISO 4316 |
| Melting point/freezing point (°C): Not determined | Not relevant to classification of this product |
| Initial boiling point and boiling range (°C): Not determined | See substance data |

Substance data, boiling point

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

| | Method / remark |
|--|--|
| Flammability (liquid): Not flammable. | |
| Flash point (°C): Not applicable. | closed cup |
| Sustained combustion: Not applicable. (UN Manual of Tests and Criteria, section 32, L.2) | |
| Evaporation rate: Not relevant for classification of this product. | Not relevant to classification of this product |
| Flammability (solid, gas): Not applicable to liquids | |
| Upper/lower flammability limit (%): Not determined | |

Substance data, flammability or explosive limits, if available:

| | Method / remark |
|--|--------------------|
| Vapour pressure: Not determined | See substance data |

Substance data, vapour pressure

| Ingredient(s) | Value (Pa) | Method | Temperature (°C) |
|---------------------------|-------------------|--------|------------------|
| alkyl alcohol alkoxyolate | No data available | | |

Bactosol Rinse Aid

| | | | |
|-------------------------|-------------------|------------------|----|
| citric acid | No data available | | |
| sodium cumenesulphonate | No data available | | |
| alkyl alcohol alkoxyate | < 10 | Method not given | 20 |

Method / remark

Not relevant to classification of this product
OECD 109 (EU A.3)

Vapour density: Not determined

Relative density: ≈ 1.04 (20 °C)

Solubility in / Miscibility with Water: Fully miscible

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|-------------------------|-------------------|------------------|------------------|
| alkyl alcohol alkoxyate | No data available | | |
| citric acid | 1630 | Method not given | |
| sodium cumenesulphonate | Soluble | | |
| alkyl alcohol alkoxyate | Insoluble | Method not given | |

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

Method / remark

Autoignition temperature: Not determined

Decomposition temperature: Not applicable.

Viscosity: Not determined

Explosive properties: Not explosive.

Oxidising properties: Not oxidising.

9.2 Other information

Surface tension (N/m): Not determined

Corrosion to metals: Not corrosive

Not relevant to classification of this product
Weight of evidence

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. 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 toxicological effects**

Mixture data:

Relevant calculated ATE(s):

ATE - Oral (mg/kg): >2000

Skin irritation and corrosivity

Result: Not corrosive to skin **Method:** Weight of evidence

Eye irritation and corrosivity

Method: Weight of evidence

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

Acute toxicity

Acute oral toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|-------------------------|------------------|---------------|---------|------------------|-------------------|
| alkyl alcohol alkoxyate | LD ₅₀ | ≥ 1000 | Rat | Method not given | |
| citric acid | LD ₅₀ | 3000 | Rat | Method not given | |

Bactosol Rinse Aid

| | | | | | |
|--------------------------|------------------|--------|-----|--------------------|--|
| sodium cumenesulphonate | LD ₅₀ | > 7000 | Rat | Method not given | |
| alkyl alcohol alkoxylate | LD ₅₀ | > 2000 | Rat | Weight of evidence | |

Acute dermal toxicity

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

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|--------------------------|------------------|-------------------|---------|------------------|-------------------|
| alkyl alcohol alkoxylate | | No data available | | | |
| citric acid | | No data available | | | |
| sodium cumenesulphonate | LC ₅₀ | > 770 | Rat | Method not given | 4 |
| alkyl alcohol alkoxylate | | No data available | | | |

Irritation and corrosivity

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) | |
| sodium cumenesulphonate | Mild irritant | Rabbit | OECD 404 (EU B.4) | |
| alkyl alcohol alkoxylate | Irritant | Rabbit | Draize test | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|--------------------------|---------------------------|---------|-------------------|---------------|
| alkyl alcohol alkoxylate | Irritant | Rabbit | OECD 405 (EU B.5) | |
| citric acid | Irritant | Rabbit | OECD 405 (EU B.5) | |
| sodium cumenesulphonate | Irritant | Rabbit | OECD 405 (EU B.5) | |
| alkyl alcohol alkoxylate | Not corrosive or irritant | Rabbit | 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 | | | |
| sodium cumenesulphonate | No data available | | | |
| alkyl alcohol alkoxylate | 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 | |
| sodium cumenesulphonate | Not sensitising | Guinea pig | OECD 406 (EU B.6) / GPMT | |
| alkyl alcohol alkoxylate | No data available | | | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|--------------------------|-------------------|---------|--------|---------------|
| alkyl alcohol alkoxylate | No data available | | | |
| citric acid | No data available | | | |
| sodium cumenesulphonate | No data available | | | |
| alkyl alcohol alkoxylate | 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 |
| sodium cumenesulphonate | No evidence for mutagenicity, negative test results | Method not given | No evidence for mutagenicity, negative test results | OECD 474 (EU B.12) |
| alkyl alcohol alkoxylate | No data available | | No data available | |

Carcinogenicity

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

Bactosol Rinse Aid

| | |
|--------------------------|-------------------|
| alkyl alcohol alkoxylate | 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 |
|--------------------------|----------|---------------------|--------------------|---------|--------------------|---------------|---------------------------------------|
| alkyl alcohol alkoxylate | | | No data available | | | | |
| citric acid | | | No data available | | | | No evidence for reproductive toxicity |
| sodium cumenesulphonate | NOAEL | Teratogenic effects | > 3000 | Rat | Non guideline test | | |
| alkyl alcohol alkoxylate | | | 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 | | | | |
| sodium cumenesulphonate | NOAEL | 763 - 3534 | | OECD 408 (EU B.26) | 90 | |
| alkyl alcohol alkoxylate | | 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 |
|--------------------------|----------|--------------------|---------|------------------|----------------------|--------------------------------------|
| alkyl alcohol alkoxylate | | No data available | | | | |
| citric acid | | No data available | | | | |
| sodium cumenesulphonate | NOAEL | 440 | Mouse | Method not given | 90 | |
| alkyl alcohol alkoxylate | | 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 | | | | |
| sodium cumenesulphonate | | No data available | | | | |
| alkyl alcohol alkoxylate | | 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 | | | | | |
| sodium cumenesulphonate | Dermal | NOAEL | 727 | Mouse | Method not given | 24 month(s) | | |
| alkyl alcohol alkoxylate | | | No data available | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|--------------------------|-------------------|
| alkyl alcohol alkoxylate | No data available |
| citric acid | No data available |
| sodium cumenesulphonate | No data available |
| alkyl alcohol alkoxylate | No data available |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|--------------------------|-------------------|
| alkyl alcohol alkoxylate | No data available |
| citric acid | No data available |
| sodium cumenesulphonate | No data available |
| alkyl alcohol alkoxylate | 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.

SECTION 12: Ecological information

Bactosol Rinse Aid

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 | 48 |
| citric acid | LC ₅₀ | 440 | <i>Leuciscus idus</i> | Method not given | 48 |
| sodium cumenesulphonate | LC ₅₀ | > 1000 | <i>Fish</i> | EPA-OPPTS 850.1075 | 96 |
| alkyl alcohol alkoxylate | LC ₅₀ | 1 - 10 | <i>Leuciscus idus</i> | Method not given | 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>Not specified</i> | Method not given | 48 |
| citric acid | EC ₅₀ | 1535 | <i>Daphnia magna Straus</i> | Method not given | 24 |
| sodium cumenesulphonate | EC ₅₀ | > 1000 | <i>Daphnia</i> | EPA-OPPTS 850.1010 | 48 |
| alkyl alcohol alkoxylate | EC ₅₀ | 1 | <i>Not specified</i> | Method not given | 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 |
| sodium cumenesulphonate | E _r C ₅₀ | 310 | <i>Not specified</i> | | 72 |
| alkyl alcohol alkoxylate | EC ₅₀ | 0.1 - 1 | <i>Not specified</i> | Method not given | 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 | | | - |
| sodium cumenesulphonate | | No data available | | | - |
| alkyl alcohol alkoxylate | | 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) |
| sodium cumenesulphonate | E _r C ₅₀ | > 1000 | <i>Bacteria</i> | OECD 209 | 3 hour(s) |
| alkyl alcohol alkoxylate | | 1000 | <i>Activated sludge</i> | DIN EN ISO 8192-OECD 209-88/302/EEC | |

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 | | | | |
| sodium cumenesulphonate | | No data available | | | | |
| alkyl alcohol alkoxylate | | 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 | | | | |
| sodium cumenesulphonate | | No data available | | | | |
| alkyl alcohol alkoxylate | NOEC | >0.1- <1 | <i>Daphnia magna</i> | Method not given | 21 day(s) | |

Bactosol Rinse Aid

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

Terrestrial toxicity - plants, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|--------------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| alkyl alcohol alkoxylate | | No data available | | | - | |
| citric acid | | No data available | | | - | |
| sodium cumenesulphonate | | No data available | | | - | |
| alkyl alcohol alkoxylate | | No data available | | | - | |

Terrestrial toxicity - birds, if available:

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure time (days) | Effects observed |
|--------------------------|----------|-------------------|---------|--------|----------------------|------------------|
| alkyl alcohol alkoxylate | | No data available | | | - | |
| citric acid | | No data available | | | - | |
| sodium cumenesulphonate | | No data available | | | - | |
| alkyl alcohol alkoxylate | | No data available | | | - | |

Terrestrial toxicity - beneficial insects, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|--------------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| alkyl alcohol alkoxylate | | No data available | | | - | |
| citric acid | | No data available | | | - | |
| sodium cumenesulphonate | | No data available | | | - | |
| alkyl alcohol alkoxylate | | No data available | | | - | |

Terrestrial toxicity - soil bacteria, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|--------------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| alkyl alcohol alkoxylate | | No data available | | | - | |
| citric acid | | No data available | | | - | |
| sodium cumenesulphonate | | No data available | | | - | |
| alkyl alcohol alkoxylate | | No data 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:

Bactosol Rinse Aid

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) | OECD 301B | Readily biodegradable |
| sodium cumenesulphonate | Activated sludge, aerobe | CO ₂ production | 100 % in 28 day(s) | OECD 301B | Readily biodegradable |
| alkyl alcohol alkoxylate | | CO ₂ production | > 60% in 28 day(s) | OECD 301B | Readily biodegradable |

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if 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 | |
| sodium cumenesulphonate | -1.1 | Method not given | Low potential for bioaccumulation | |
| alkyl alcohol alkoxylate | - | | No bioaccumulation expected | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|--------------------------|-------------------|---------|--------|-----------------------------|--------|
| alkyl alcohol alkoxylate | No data available | | | | |
| citric acid | No data available | | | | |
| sodium cumenesulphonate | No data available | | | | |
| alkyl alcohol alkoxylate | - | | | No bioaccumulation expected | |

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 |
| sodium cumenesulphonate | No data available | | | | |
| alkyl alcohol alkoxylate | No data available | | | | Potential for adsorption to soil |

12.5 Results of PBT and vPvB assessment

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

12.5 Other adverse effects**12.6 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 30 - detergents other than those mentioned in 20 01 29.

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:** 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 Transport in bulk according to Annex II of MARPOL and the IBC Code:** Non-dangerous goods**SECTION 15: Regulatory information**

Bactosol Rinse Aid**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

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

UFI: XY60-S0G6-E000-81P0

Ingredients according to EC Detergents Regulation 648/2004

| | |
|---------------------------------------|----------|
| non-ionic surfactants | 5 - 15 % |
| anionic surfactants, polycarboxylates | < 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.

15.2 Chemical safety assessment

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

SECTION 16: Other information

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

SDS code: 683532

Version: 05.0

Revision: 2020-02-19

Reason for revision:

This data sheet contains changes from the previous version in section(s):, 2, 6, 7, 15, 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.

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

- H302 - Harmful if swallowed.
- H315 - Causes skin irritation.
- H319 - Causes serious eye irritation.
- H400 - Very toxic to aquatic life.
- H412 - Harmful to aquatic life with long lasting effects.

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
- ATE - Acute Toxicity Estimate
- LD50 - Lethal Dose, 50% / Median Lethal dose
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- EC50 - effective concentration, 50%
- NOEL - No observed effect level
- NOAEL - No observed adverse effect level
- OECD - Organization for Economic Cooperation and Development

End of Safety Data Sheet