

Safety Data Sheet

According to Regulation (EC) No 1907/2006

Carefree Mop & Shine

Revision: 2020-03-08

Version: 06.0

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

1.1 Product identifier

Trade name: Carefree Mop & Shine

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

Identified uses: For professional use only. AISE-P401 - Floor cleaner. Semi-automatic process AISE-P403 - Floor cleaner. Manual 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) Aquatic Chronic 3 (H412)

2.2 Label elements



Signal word: Warning.

Contains 2-methyl-2H-isothiazol-3-one (Methylisothiazolinone)

Hazard statements:

H319 - Causes serious eye irritation. EUH208 - May produce an allergic reaction. H412 - Harmful to aquatic life with long lasting effects.

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 |
|-------------------------------|-----------|------------|------------------|--------------------------------|-------|-------------------|
| 2-(2-ethoxyethoxy)ethanol | 203-919-7 | 111-90-0 | 01-2119475105-42 | Not classified as hazardous | | 3-10 |
| tris(2-butoxyethyl) phosphate | 201-122-9 | 78-51-3 | 01-2119485835-23 | Not classified as hazardous | | 1-3 |

| ethanediol | 203-473-3 | 107-21-1 | 01-2119456816-28 | Acute Tox. 4 (H302) | 1-3 |
|--------------------------|-----------|------------|------------------|------------------------|-------|
| | | | | STOT RE 2 (H373) | |
| alkyl alcohol ethoxylate | [4] | 69011-36-5 | [4] | Acute Tox. 4 (H302) | 1-3 |
| | | | | Eye Dam. 1 (H318) | |
| zinc oxide | 215-222-5 | 1314-13-2 | 01-2119463881-32 | Aquatic Acute 1 (H400) | 0.1-1 |
| | | | | Aquatic Chronic 1 | |
| | | | | (H410) | |
| ammonia | 215-647-6 | 1336-21-6 | 01-2119488876-14 | Skin Corr. 1B (H314) | 0.1-1 |
| | | | | STOT SE 3 (H335) | |
| | | | | Eye Dam. 1 (H318) | |
| | | | | Aquatic Acute 1 (H400) | |
| | | | | Aquatic Chronic 2 | |
| | | | | (H411) | 1 |

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. 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 eff | ects, both acute and delayed |
| Inhalation: | No known effects or symptoms in normal use. |
| Skin contact: | 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.

No known effects or symptoms in normal use.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Eye contact:

Ingestion:

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

Causes severe irritation.

5.2 Special hazards arising from the substance or mixture

No special hazards known.

5.3 Advice for firefighters

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

No special measures required.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Dilute with plenty of water. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

6.3 Methods and material for containment and cleaning up

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 adviced 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.

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:

| Ingredient(s) | UK - Long term value(s) | UK - Short term value(s) |
|---------------|--|---|
| ethanediol | 10 mg/m ³ particulates 20 ppm vapour | 40 ppm vapour 104 mg/m ³ vapour |
| | 52 mg/m ³ vapour | 30 mg/m ³ particulate |
| ammonia | 25 ppm | 35 ppm |
| | 18 mg/m ³ | 25 mg/m ³ |

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 |
|-------------------------------|-------------------------------|----------------------------------|------------------------------|---------------------------------|
| 2-(2-ethoxyethoxy)ethanol | - | - | - | 25 |
| tris(2-butoxyethyl) phosphate | - | - | - | 0.25 |
| ethanediol | - | - | - | - |
| alkyl alcohol ethoxylate | - | - | - | - |
| zinc oxide | - | - | - | 0.83 |
| ammonia | - | - | - | - |

DNFL 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) |
|-------------------------------|-------------------------------|---|------------------------------|--|
| 2-(2-ethoxyethoxy)ethanol | No data available | - | No data available | 50 |
| tris(2-butoxyethyl) phosphate | - | - | 0.02 mg/cm ² skin | 14 |
| ethanediol | No data available | - | No data available | 106 |
| alkyl alcohol ethoxylate | - | - | - | - |
| zinc oxide | No data available | - | No data available | 83 |
| ammonia | No data available | 6.8 | No data available | 6.8 |

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) |
|-------------------------------|-------------------------------|---|------------------------------|--|
| 2-(2-ethoxyethoxy)ethanol | No data available | - | No data available | 25 |
| tris(2-butoxyethyl) phosphate | - | - | - | 7 |
| ethanediol | No data available | - | No data available | 53 |
| alkyl alcohol ethoxylate | - | - | - | - |
| zinc oxide | No data available | - | No data available | 83 |
| ammonia | 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 |
|-------------------------------|-------------------------------|----------------------------------|------------------------------|---------------------------------|
| 2-(2-ethoxyethoxy)ethanol | - | - | 18 | 37 |
| tris(2-butoxyethyl) phosphate | - | - | - | 3.5 |
| ethanediol | - | - | 35 | - |
| alkyl alcohol ethoxylate | - | - | - | No data available |
| zinc oxide | - | - | - | 5 |
| ammonia | 36 | 47.6 | 14 | 47.6 |

DNEL inhalatory exposure - Consumer (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|-------------------------------|-------------------------------|----------------------------------|------------------------------|---------------------------------|
| 2-(2-ethoxyethoxy)ethanol | - | - | 9 | 18.3 |
| tris(2-butoxyethyl) phosphate | - | - | - | 1 |
| ethanediol | - | - | 7 | - |
| alkyl alcohol ethoxylate | No data available | No data available | - | - |
| zinc oxide | - | - | - | 2.5 |
| ammonia | - | - | - | - |

Environmental exposure

| Ingredient(s) | Surface water, fresh (mg/l) | Surface water, marine (mg/l) | Intermittent (mg/l) | Sewage treatment plant (mg/l) |
|-------------------------------|--------------------------------|---------------------------------|---------------------|----------------------------------|
| 2-(2-ethoxyethoxy)ethanol | 0.74 | 0.074 | 10 | 500 |
| tris(2-butoxyethyl) phosphate | 0.024 | 0.0024 | 0.24 | 8.96 |
| ethanediol | 10 | 1 | 10 | 199.5 |
| alkyl alcohol ethoxylate | - | - | - | - |
| zinc oxide | 0.0206 | 0.0061 | - | 0.052 |
| ammonia | 0.0011 | 0.011 | - | - |

Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m³) |
|-------------------------------|---------------------------------|-----------------------------|--------------|-------------|
| 2-(2-ethoxyethoxy)ethanol | 2.74 | 0.274 | 0.15 | - |
| tris(2-butoxyethyl) phosphate | 0.845 | 0.0845 | 0.16575 | - |
| ethanediol | 37 | 3.7 | 1.53 | - |
| alkyl alcohol ethoxylate | - | - | - | - |
| zinc oxide | 117.8 | 0.0565 | 0.0356 | - |
| ammonia | - | - | - | - |

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 <u>undiluted</u> product:

| Appropriate engineering controls: Appropriate organisational controls: | No special requirements under normal use conditions. 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. |

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:LiquidColour:MilkyOdour:Slightly perfumedOdour threshold:Not applicable $pH \approx 8$ (neat)Melting point/freezing point (°C):Melting point and boiling range (°C):Not determined

ISO 4316 Not relevant to classification of this product See substance data

Substance data, boiling point

| Ingredient(s) | Value (°C) | Method | Atmospheric pressure (hPa) |
|-------------------------------|-------------------|------------------|-------------------------------|
| 2-(2-ethoxyethoxy)ethanol | 197 | Method not given | 1013 |
| tris(2-butoxyethyl) phosphate | 210-220 | Method not given | 5.2 |
| ethanediol | 194-205 | Method not given | 1013 |
| alkyl alcohol ethoxylate | > 200 | Method not given | |
| zinc oxide | No data available | | |
| ammonia | 28.5 | Method not given | |

Method / remark

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

See substance data

Substance data, flammability or explosive limits, if available:

| Ingredient(s) | Lower limit (% vol) | Upper limit (% vol) |
|---------------------------|------------------------|------------------------|
| 2-(2-ethoxyethoxy)ethanol | 1.2 | 11.6 |
| ethanediol | 3.2 | 15.3 |
| ammonia | 15.4 | 33.6 |

Vapour pressure: Not determined

Substance data vanour prossure

| Ingredient(s) | Value (Pa) | Method | Temperature (°C) |
|-------------------------------|-------------------|--------------------|---------------------|
| 2-(2-ethoxyethoxy)ethanol | 20 | Method not given | 20 |
| tris(2-butoxyethyl) phosphate | 0.0000152 | Method not given | 25 |
| ethanediol | 12.3 | Non guideline test | 25 |
| alkyl alcohol ethoxylate | Negligible | Method not given | 20-25 |
| zinc oxide | No data available | | |
| ammonia | 586500 | Method not given | 20 |

Vapour density: Not determined Relative density: ≈ 1.03 (20 °C) Solubility in / Miscibility with Water: Fully miscible

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|-------------------------------|----------------|-------------------|---------------------|
| 2-(2-ethoxyethoxy)ethanol | Soluble | Method not given | 20 |
| tris(2-butoxyethyl) phosphate | 0.66 | OECD 105 (EU A.6) | 20 |
| ethanediol | Soluble | Method not given | 20 |
| alkyl alcohol ethoxylate | Soluble | Method not given | 20 |
| zinc oxide | Insoluble | | |
| ammonia | 100 Soluble | Method not given | 20 |

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

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

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.

Method / remark

Not oxidising, based on substance properties

Not relevant to classification of this product

OECD 115 Weight of evidence

Method / remark

Method / remark

OECD 109 (EU A.3)

See substance data

10.5 Incompatible materials

None known under normal use conditions.

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

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

Acute toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|-------------------------------|----------|------------------|---------|------------------------|----------------------|
| 2-(2-ethoxyethoxy)ethanol | LD 50 | 5540 | Rat | Method not given | |
| tris(2-butoxyethyl) phosphate | LD 50 | > 2000 | Rat | Method not given | |
| ethanediol | LD 50 | 7712 | Rat | Method not given | |
| alkyl alcohol ethoxylate | LD 50 | > 300-2000 | Rat | OECD 423 (EU B.1 tris) | |
| zinc oxide | LD 50 | > 5000 | Rat | Method not given | |
| ammonia | LD 50 | 350 | Rat | Method not given | |

| Acute dermal toxicity | | | | | |
|-------------------------------|----------|----------------------|---------|------------------|----------------------|
| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
| 2-(2-ethoxyethoxy)ethanol | LD 50 | 5940 | Rat | Method not given | |
| tris(2-butoxyethyl) phosphate | LD 50 | > 5000 | Rat | Method not given | |
| ethanediol | LD 50 | > 2000 | Rabbit | Method not given | |
| alkyl alcohol ethoxylate | LD 50 | > 2000 | Rabbit | Method not given | |
| zinc oxide | | No data available | | | |
| ammonia | | No data available | | | |

| Acute inhalative toxicity | | | | | |
|-------------------------------|----------|--|---------|--------------------|----------------------|
| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
| 2-(2-ethoxyethoxy)ethanol | LC o | > 5.24 (mist) | Rat | OECD 403 (EU B.2) | 8 |
| tris(2-butoxyethyl) phosphate | LC o | > 6.4 (mist) | Rat | OECD 403 (EU B.2) | 4 |
| ethanediol | LC 50 | > 2.5 (mist) No mortality observed | Rat | Weight of evidence | 6 |
| alkyl alcohol ethoxylate | | No data available | | | |
| zinc oxide | | No data available | | | |
| ammonia | LC 50 | 7.035 | Rat | Method not given | 0.5 |

Irritation and corrosivity

| Skin irritation and corrosivity | | | | |
|---------------------------------|-------------------|---------|-------------------|---------------|
| Ingredient(s) | Result | Species | Method | Exposure time |
| 2-(2-ethoxyethoxy)ethanol | No data available | | | |
| tris(2-butoxyethyl) phosphate | Not irritant | Rabbit | Method not given | |
| ethanediol | Not irritant | Rabbit | Method not given | |
| alkyl alcohol ethoxylate | Not irritant | Rabbit | OECD 404 (EU B.4) | |
| zinc oxide | No data available | | | |
| ammonia | Corrosive | | Method not given | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------|------------------------------|---------|------------------|---------------|
| 2-(2-ethoxyethoxy)ethanol | No data available | | | |
| tris(2-butoxyethyl) phosphate | Not corrosive or irritant | Rabbit | Method not given | |
| ethanediol | Not corrosive or irritant | Rabbit | Method not given | |
| alkyl alcohol ethoxylate | Severe damage | Rabbit | Method not given | |
| zinc oxide | No data available | | | |
| ammonia | Severe damage | | Method not given | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------|------------------------------------|---------|------------------|---------------|
| 2-(2-ethoxyethoxy)ethanol | No data available | | | |
| tris(2-butoxyethyl) phosphate | No data available | | | |
| ethanediol | No data available | | | |
| alkyl alcohol ethoxylate | No data available | | | |
| zinc oxide | No data available | | | |
| ammonia | Irritating to respiratory tract | | Method not given | |

Sensitisation Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|-------------------------------|-------------------|------------|-------------------------------------|-------------------|
| 2-(2-ethoxyethoxy)ethanol | Not sensitising | | Method not given | |
| tris(2-butoxyethyl) phosphate | Not sensitising | Guinea pig | OECD 406 (EU B.6) / Buehler test | |
| ethanediol | Not sensitising | | Method not given | |
| alkyl alcohol ethoxylate | Not sensitising | Guinea pig | Method not given | |
| zinc oxide | No data available | | | |
| ammonia | Not sensitising | | Method not given | |

| Sensitisation | by | inhalation | |
|---------------|----|------------|--|
| | | | |

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------|-------------------|---------|--------|---------------|
| 2-(2-ethoxyethoxy)ethanol | No data available | | | |
| tris(2-butoxyethyl) phosphate | No data available | | | |
| ethanediol | No data available | | | |
| alkyl alcohol ethoxylate | No data available | | | |
| zinc oxide | No data available | | | |
| ammonia | 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) |
|-------------------------------|--|--|---|-----------------------|
| 2-(2-ethoxyethoxy)ethanol | No data available | | No data available | |
| tris(2-butoxyethyl) phosphate | No evidence for mutagenicity, negative test results | OECD 471 (EU B.12/13) OECD 476 (Chinese Hamster Ovary) OECD 476 (HGPRT) | No evidence for mutagenicity, negative test results | OECD 474 (EU B.12) |
| ethanediol | No evidence for mutagenicity, negative test results | Method not given | No data available | |
| alkyl alcohol ethoxylate | No evidence of genotoxicity, negative test results | | No evidence of genotoxicity, negative test results | Method not given |
| zinc oxide | No data available | | No data available | |
| ammonia | No evidence for mutagenicity | | No evidence for mutagenicity | |

Carcinogenicity

| Ingredient(s) | Effect |
|-------------------------------|--|
| 2-(2-ethoxyethoxy)ethanol | No data available |
| tris(2-butoxyethyl) phosphate | No data available |
| ethanediol | No evidence for carcinogenicity, negative test results |
| alkyl alcohol ethoxylate | No evidence for carcinogenicity, weight-of-evidence |
| zinc oxide | No data available |
| ammonia | No data available |

Toxicity for reproduction

| Ingredient(s) | Endpoint | Specific effect | Value | Species | Method | Exposure | Remarks and other effects |
|--------------------------|----------|---------------------|--------------|---------|-----------|----------|---------------------------------|
| | | | (mg/kg bw/d) | | | time | reported |
| 2-(2-ethoxyethoxy)etha | | | No data | | | | |
| nol | | | available | | | | |
| tris(2-butoxyethyl) | | | No data | | Not known | | No evidence for reproductive |
| phosphate | | | available | | | | toxicity |
| ethanediol | | | No data | | | | No evidence for reproductive |
| | | | available | | | | toxicity |
| alkyl alcohol ethoxylate | NOAEL | Teratogenic effects | > 50 | Rat | Not known | | No known significant effects or |
| | | - | | | | | critical hazards |
| zinc oxide | | | No data | | | | |
| | | | available | | | | |
| ammonia | | | No data | | | | No evidence for reproductive |
| | | | available | | | | toxicity |

Repeated dose toxicity Sub-acute or sub-chronic oral toxicity

| Ingredient(s) | Endpoint | Value (mg/kg bw/d) | Species | Method | Exposure time (days) | Specific effects and organs affected |
|-------------------------------|----------|-----------------------|---------|------------|-------------------------|---|
| 2-(2-ethoxyethoxy)ethanol | | No data | | | | |
| | | available | | | | |
| tris(2-butoxyethyl) phosphate | NOAEL | 20 | Rat | Method not | non-standar | |

| | | | given | d | |
|--------------------------|-------|-----------|------------|---|--|
| ethanediol | | No data | | | |
| | | available | | | |
| alkyl alcohol ethoxylate | | No data | | | |
| | | available | | | |
| zinc oxide | | No data | | | |
| | | available | | | |
| ammonia | NOAEL | 68 | Method not | | |
| | | | given | | |

Sub-chronic dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg bw/d) | Species | Method | Exposure time (days) | Specific effects and organs affected |
|-------------------------------|----------|-----------------------|---------|---------------------|-------------------------|---|
| 2-(2-ethoxyethoxy)ethanol | | No data available | | | | |
| tris(2-butoxyethyl) phosphate | NOAEL | 1000 | Rabbit | Method not given | 21 | |
| ethanediol | | No data available | | | | |
| alkyl alcohol ethoxylate | | No data available | | | | |
| zinc oxide | | No data available | | | | |
| ammonia | | 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 |
|-------------------------------|----------|-----------------------|---------|--------|-------------------------|---|
| 2-(2-ethoxyethoxy)ethanol | | No data available | | | | |
| tris(2-butoxyethyl) phosphate | | No data available | | | | |
| ethanediol | | No data available | | | | |
| alkyl alcohol ethoxylate | | No data available | | | | |
| zinc oxide | | No data available | | | | |
| ammonia | | No data available | | | | |

Ch onic toxicity

| Ingredient(s) | Exposure route | Endpoint | Value (mg/kg bw/d) | Species | Method | Exposure time | Specific effects and organs affected | Remark |
|--------------------------|-------------------|----------|-----------------------|---------|------------|------------------|---|--------|
| 2-(2-ethoxyethoxy)etha | | | No data | | | unic | | |
| nol | | | available | | | | | |
| tris(2-butoxyethyl) | | | No data | | | | | |
| phosphate | | | available | | | | | |
| ethanediol | | | No data | | | | | |
| | | | available | | | | | |
| alkyl alcohol ethoxylate | Oral | NOAEL | 50 | Rat | Method not | 24 month(s) | Effects on organ weights | |
| | | | | | given | | | |
| zinc oxide | | | No data | | | | | |
| | | | available | | | | | |
| ammonia | | | No data | | | | | |
| | | | available | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|-------------------------------|-------------------|
| 2-(2-ethoxyethoxy)ethanol | No data available |
| tris(2-butoxyethyl) phosphate | Not applicable |
| ethanediol | No data available |
| alkyl alcohol ethoxylate | Not applicable |
| zinc oxide | No data available |
| ammonia | No data available |

STOT-repeated exposure

| STOT-Tepeated exposure | | | | | |
|-------------------------------|-------------------|--|--|--|--|
| Ingredient(s) | Affected organ(s) | | | | |
| 2-(2-ethoxyethoxy)ethanol | No data available | | | | |
| tris(2-butoxyethyl) phosphate | Not applicable | | | | |
| ethanediol | No data available | | | | |
| alkyl alcohol ethoxylate | Not applicable | | | | |
| zinc oxide | No data available | | | | |
| ammonia | 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

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

| LC 50 | > 100 | Pimephales | | |
|-------|-------------------------|--|---|--|
| | | promelas | Method not given | 96 |
| LC 50 | 24 | Oncorhynchus mykiss Various species | Method not given | 96 |
| LC 50 | 18500 | Oncorhynchus mykiss | Method not given | 96 |
| LC 50 | 1 - 10 | Cyprinus carpio | OECD 203 (EU C.1) | 96 |
| LC 50 | 1.1 | Oncorhynchus mykiss | Method not given | 96 |
| LC 50 | 0.56 - 2.48 | Fish | Method not given | 96 |
| - | LC 50 LC 50 LC 50 | LC 50 18500 LC 50 1 - 10 LC 50 1.1 | LC 50 18500 Oncorhynchus mykiss Various species Oncorhynchus mykiss LC 50 1 - 10 Cyprinus carpio LC 50 1.1 Oncorhynchus mykiss | mykiss Various species mykiss Various species LC 50 18500 Oncorhynchus mykiss Method not given LC 50 1 - 10 Cyprinus carpio OECD 203 (EU C.1) LC 50 1.1 Oncorhynchus mykiss Method not given |

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------------------|----------|----------------------|-------------------------|------------------|----------------------|
| 2-(2-ethoxyethoxy)ethanol | EC 50 | 1982 | Daphnia magna Straus | Method not given | 48 |
| tris(2-butoxyethyl) phosphate | EC 50 | 53 | Daphnia magna Straus | Method not given | 48 |
| ethanediol | EC 50 | > 100 | Daphnia magna Straus | Method not given | 48 |
| alkyl alcohol ethoxylate | EC 50 | 1 - 10 | Daphnia magna Straus | OECD 202, static | 48 |
| zinc oxide | | No data available | | | - |
| ammonia | EC 50 | 1.1 - 22.8 | Daphnia magna Straus | Method not given | - |

| Aquatic short-term toxicity - algae | | | | | |
|-------------------------------------|----------|----------------------|---|------------------|----------------------|
| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
| 2-(2-ethoxyethoxy)ethanol | | No data available | | | - |
| tris(2-butoxyethyl) phosphate | EC 50 | 61 | Pseudokirchner iella subspicatata | Method not given | 48 |
| ethanediol | EC 50 | 6500 - 13000 | Pseudokirchner iella subcapitata | Method not given | 96 |
| alkyl alcohol ethoxylate | EC 50 | 1 - 10 | Desmodesmus subspicatus | OECD 201, static | 72 |
| zinc oxide | EC 50 | 0.17 | Desmodesmus subspicatus | Method not given | 72 |
| ammonia | | No data available | | | - |

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (days) |
|-------------------------------|----------|----------------------|---------|--------|-------------------------|
| 2-(2-ethoxyethoxy)ethanol | | No data available | | | - |
| tris(2-butoxyethyl) phosphate | | No data available | | | - |
| ethanediol | | No data available | | | - |
| alkyl alcohol ethoxylate | | No data available | | | - |
| zinc oxide | | No data available | | | - |
| ammonia | | No data available | | | - |

Impact on sewage plants - toxicity to bacteria

| Ingredient(s) | Endpoint | Value | Inoculum | Method | Exposure |
|-------------------------------|----------|---------|-----------------------|--------------------|------------|
| | | (mg/l) | | | time |
| 2-(2-ethoxyethoxy)ethanol | EC 50 | > 5000 | | Method not given | 16 hour(s) |
| tris(2-butoxyethyl) phosphate | EC 50 | > 1000 | Activated sludge | Method not given | 3 hour(s) |
| ethanediol | EC 50 | 10000 | Pseudomonas putida | Method not given | 16 hour(s) |
| alkyl alcohol ethoxylate | EC 10 | > 10000 | Activated | DIN 38412 / Part 8 | 17 hour(s) |

| | | sludge | |
|------------|-----------|--------|--|
| zinc oxide | No data | | |
| | available | | |
| ammonia | No data | | |
| | available | | |

Aquatic long-term toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|-------------------------------|----------|----------------------|---------------|---------------------|------------------|------------------|
| 2-(2-ethoxyethoxy)ethanol | | No data available | | | | |
| tris(2-butoxyethyl) phosphate | | No data available | | | | |
| ethanediol | NOEC | > 100 | Not specified | Method not given | | |
| alkyl alcohol ethoxylate | | No data available | | | | |
| zinc oxide | | No data available | | | | |
| ammonia | | No data available | | | | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|-------------------------------|----------|----------------------|------------------|---------------------|------------------|------------------|
| 2-(2-ethoxyethoxy)ethanol | | No data available | | | | |
| tris(2-butoxyethyl) phosphate | | No data available | | | | |
| ethanediol | NOEC | > 100 | | Method not given | | |
| alkyl alcohol ethoxylate | | No data available | | | | |
| zinc oxide | NOEC | 0.4 | Daphnia magna | Method not given | 48 hour(s) | |
| ammonia | | 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 |
|-------------------------------|----------|---------------------------------|---------|--------|-------------------------|------------------|
| 2-(2-ethoxyethoxy)ethanol | | No data available | | | - | |
| tris(2-butoxyethyl) phosphate | | No data available | | | - | |
| ethanediol | | No data available | | | - | |
| alkyl alcohol ethoxylate | | No data available | | | - | |
| zinc oxide | | No data available | | | - | |
| ammonia | | No data available | | | - | |

 Ingredient(s)
 Endpoint
 Value Species Method Exposure Effects observed

| ingreateria(s) | | (mg/kg dw soil) | Species | Method | time (days) | Lifects observed |
|-------------------------------|------|----------------------|----------------|--------|-------------|------------------|
| 2-(2-ethoxyethoxy)ethanol | | No data available | | | - | |
| tris(2-butoxyethyl) phosphate | | No data available | | | - | |
| ethanediol | | No data available | | | - | |
| alkyl alcohol ethoxylate | NOEC | 220 | Eisenia fetida | | - | |
| zinc oxide | | No data available | | | - | |
| ammonia | | No data available | | | - | |

Terrestrial toxicity - plants, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|-------------------------------|----------|-----------------------------|---------------------|----------|-------------------------|------------------|
| 2-(2-ethoxyethoxy)ethanol | | No data available | | | - | |
| tris(2-butoxyethyl) phosphate | | No data available | | | - | |
| ethanediol | | No data available | | | - | |
| alkyl alcohol ethoxylate | NOEC | 10 | Lepidium sativum | OECD 208 | - | |

| zinc oxide | No data available | - | |
|------------|----------------------|---|--|
| ammonia | No data | - | |
| | available | | |

| errestrial toxicity - birds, if available: | | | | | | |
|--|----------|----------------------|---------|--------|-------------------------|------------------|
| Ingredient(s) | Endpoint | Value | Species | Method | Exposure time (days) | Effects observed |
| 2-(2-ethoxyethoxy)ethanol | | No data available | | | - | |
| tris(2-butoxyethyl) phosphate | | No data available | | | - | |
| ethanediol | | No data available | | | - | |
| alkyl alcohol ethoxylate | | No data available | | | - | |
| zinc oxide | | No data available | | | - | |
| ammonia | | No data available | | | - | |

Terrestrial toxicity - beneficial insects, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|-------------------------------|----------|-----------------------------|---------|--------|-------------------------|------------------|
| 2-(2-ethoxyethoxy)ethanol | | No data available | | | - | |
| tris(2-butoxyethyl) phosphate | | No data available | | | - | |
| ethanediol | | No data available | | | - | |
| alkyl alcohol ethoxylate | | No data available | | | - | |
| zinc oxide | | No data available | | | - | |
| ammonia | | No data available | | | - | |

Terrestrial toxicity - soil bacteria, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|-------------------------------|----------|-----------------------------|---------|--------|-------------------------|------------------|
| 2-(2-ethoxyethoxy)ethanol | | No data available | | | - | |
| tris(2-butoxyethyl) phosphate | | No data available | | | - | |
| ethanediol | | No data available | | | - | |
| alkyl alcohol ethoxylate | | No data available | | | - | |
| zinc oxide | | No data available | | | - | |
| ammonia | | No data available | | | - | |

12.2 Persistence and degradability

Abiotic degradation Abiotic degradation - photodegradation in air, if available:

| Ingredient(s) | Half-life time | Method | Evaluation | Remark |
|---------------|-------------------|------------------|-------------------------|--------|
| ethanediol | No data available | Method not given | Rapidly photodegradable | |

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 |
|-------------------------------|-----------------------------|----------------------------|------------------------|-----------|--------------------------------------|
| 2-(2-ethoxyethoxy)ethanol | | | 90 % in 28 day(s) | OECD 301E | Readily biodegradable |
| tris(2-butoxyethyl) phosphate | | | 87 % in 28 day(s) | OECD 301B | Readily biodegradable |
| ethanediol | | | 56 % in 28 day(s) | OECD 301A | Readily biodegradable |
| alkyl alcohol ethoxylate | Activated sludge, aerobe | CO ₂ production | > 60 % in 28 day(s) | OECD 301B | Readily biodegradable |
| zinc oxide | | | | | Not applicable (inorganic substance) |
| ammonia | | | | | Not applicable (inorganic substance) |

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 |
|-------------------------------|-------------------|------------------|-----------------------------|--------|
| 2-(2-ethoxyethoxy)ethanol | -0.8 | Method not given | No bioaccumulation expected | |
| tris(2-butoxyethyl) phosphate | 3.75 | Method not given | No bioaccumulation expected | |
| ethanediol | -1.34 | Method not given | No bioaccumulation expected | |
| alkyl alcohol ethoxylate | - | | No bioaccumulation expected | |
| zinc oxide | No data available | | | |
| ammonia | 0.23 | Method not given | No bioaccumulation expected | |

| Bioconcentration factor (| BCF) | | | | |
|----------------------------------|-------------------|---------|------------------|-----------------------------|--------|
| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
| 2-(2-ethoxyethoxy)etha nol | No data available | | | | |
| tris(2-butoxyethyl) phosphate | 5.8 | | Method not given | No bioaccumulation expected | |
| ethanediol | No data available | | | | |
| alkyl alcohol ethoxylate | - | | | No bioaccumulation expected | |
| zinc oxide | No data available | | | | |
| ammonia | No data available | | | | |

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

| Ingredient(s) | Adsorption coefficient Log Koc | Desorption coefficient Log Koc(des) | Method | Soil/sediment type | Evaluation |
|-------------------------------|--------------------------------------|---|------------------|-----------------------|--|
| 2-(2-ethoxyethoxy)ethanol | No data available | | | | High potential for mobility in soil |
| tris(2-butoxyethyl) phosphate | 2.5 | | Method not given | | Mobile in soil |
| ethanediol | No data available | | | | Potential for mobility in soil, soluble in water |
| alkyl alcohol ethoxylate | No data available | | | | Immobile in soil or sediment |
| zinc oxide | No data available | | | | |
| ammonia | No data available | | | | Low mobillity in soil |

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations

| 13.1 Waste treatment methods | The concentrated contents or contaminated packaging should be disposed of by a certified handler |
|---|---|
| Waste from residues / unused | or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging |
| products: | 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: Suitable cleaning agents: | Dispose of observing national or local regulations. Water, if necessary with cleaning agent. |

SECTION 14: Transport information

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

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: STH6-80VQ-100T-4QV5

Ingredients according to EC Detergents Regulation 648/2004

non-ionic surfactants perfumes, Phenoxyethanol, Benzisothiazolinone, Methylisothiazolinone

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: MSDS7237 Reason for revision:

This data sheet contains changes from the previous version in section(s):, 2, 3, 8, 9, 11, 12, 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:

- · H226 Flammable liquid and vapour.
- · H228 Flammable solid.
- · H290 May be corrosive to metals.
- · H301 Toxic if swallowed.
- · H302 Harmful if swallowed
- · H304 May be fatal if swallowed and enters airways.
- H311 Toxic in contact with skin. • H314 - Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- · H317 May cause an allergic skin reaction.
- · H318 Causes serious eye damage.
- · H319 Causes serious eye irritation.
- H320 Causes eye irritation.
- H330 Fatal if inhaled.
- · H332 Harmful if inhaled
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- · H351 Suspected of causing cancer.
- H371 May cause damage to organs.
- · H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.
- · EUH031 Contact with acids liberates toxic gas.

Abbreviations and acronyms:

- AISE The international Association for Soaps, Detergents and Maintenance Products
- 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

< 5 %

Version: 06.0

Revision: 2020-03-08