

Shield 3 Way Toilet Cleaner

Revision: 2017-02-15

Version: 01.0

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

1.1 Product identifier

Trade name: Shield 3 Way Toilet Cleaner

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

Identified uses:

For professional use only.

AISE-P305 - Sanitary 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

Contact details

Diversey Ltd

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

Skin Irrit. 2 (H315)

Eye Dam. 1 (H318)

Aquatic Chronic 3 (H412)

Met. Corr. 1 (H290)

2.2 Label elements



Signal word: Danger.

Contains alkyl alcohol ethoxylate (C9-11 Pareth-6).

Hazard statements:

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H412 - Harmful to aquatic life with long lasting effects.

H290 - May be corrosive to metals.

Precautionary statements:

P280 - Wear eye or face protection.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTRE, doctor or physician.

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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 (1999/45/EC) | Notes | Weight percent |
|--------------------------------------|-----------|------------|-------------------|--|-----------------------------|-------|----------------|
| phosphoric acid | 231-633-2 | 7664-38-2 | 01-2119485924-24 | Skin Corr. 1B (H314) Met. Corr. 1 (H290) | C;R34 | | 3-10 |
| alkyl alcohol ethoxylate | Polymer* | 68439-46-3 | [4] | Acute Tox. 4 (H302) Eye Dam. 1 (H318) | Xn;R22 Xi;R41 | | 3-10 |
| alkyldimethylbenzylammonium chloride | 270-325-2 | 68424-85-1 | No data available | Skin Corr. 1B (H314) Acute Tox. 4 (H302) Acute Tox. 4 (H312) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) | Xn;R21/22 C;R34 N;R50 | | 1-3 |

* Polymer.

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.

For the full text of the R, 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. Take off immediately all contaminated clothing and wash it before re-use. 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. Immediately call a POISON CENTRE, doctor or physician.

Ingestion:

Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. 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:

Causes irritation.

Eye contact:

Causes severe or permanent damage.

Ingestion:

No known effects or symptoms in normal use.

4.3 Indication of any immediate medical attention and special treatment needed

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

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

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

5.2 Special hazards arising from the substance or mixture

No special hazards known.

5.3 Advice for firefighters

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

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

Wear eye/face protection.

6.2 Environmental precautions

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

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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

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 Sealed Air. Wash hands before breaks and at the end of workday. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Use personal protective equipment as required. Avoid contact with eyes. Use only with adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local and national regulations. Keep only in original container. Store in a closed container.

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) |
|-----------------|-------------------------|--------------------------|
| phosphoric acid | 1 mg/m ³ | 2 mg/m ³ |

Biological limit values, 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 |
|-------------------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| phosphoric acid | - | - | - | - |
| alkyl alcohol ethoxylate | - | - | - | - |
| alkyldimethylbenzylammoniumchloride | - | - | - | 3.4 |

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) |
|-------------------------------------|----------------------------|--|---------------------------|---|
| phosphoric acid | No data available | - | No data available | - |
| alkyl alcohol ethoxylate | - | - | - | - |
| alkyldimethylbenzylammoniumchloride | - | - | - | 5.7 |

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) |
|-------------------------------------|----------------------------|--|---------------------------|---|
| phosphoric acid | No data available | - | No data available | - |
| alkyl alcohol ethoxylate | - | - | - | - |
| alkyldimethylbenzylammoniumchloride | - | - | - | 3.4 |

DNEL inhalatory exposure - Worker (mg/m³)

| Ingredient(s) | Short term - Local effects | Short term - Systemic effects | Long term - Local effects | Long term - Systemic effects |
|-------------------------------------|----------------------------|-------------------------------|---------------------------|------------------------------|
| phosphoric acid | - | - | 2.92 | - |
| alkyl alcohol ethoxylate | - | - | - | - |
| alkyldimethylbenzylammoniumchloride | - | - | - | 3.96 |

DNEL inhalatory exposure - Consumer (mg/m³)

| Ingredient(s) | Short term - Local | Short term - Systemic | Long term - Local | Long term - Systemic |
|---------------|--------------------|-----------------------|-------------------|----------------------|
|---------------|--------------------|-----------------------|-------------------|----------------------|

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| | effects | effects | effects | effects |
|-------------------------------------|---------|---------|---------|---------|
| phosphoric acid | - | - | 0.73 | - |
| alkyl alcohol ethoxylate | - | - | - | - |
| alkyldimethylbenzylammoniumchloride | - | - | - | 1.64 |

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) |
|-------------------------------------|-----------------------------|------------------------------|---------------------|-------------------------------|
| phosphoric acid | - | - | - | - |
| alkyl alcohol ethoxylate | - | - | - | - |
| alkyldimethylbenzylammoniumchloride | 0.0009 | 0.00009 | 0.00016 | 0.4 |

Environmental exposure - PNEC, continued

| Ingredient(s) | Sediment, freshwater (mg/kg) | Sediment, marine (mg/kg) | Soil (mg/kg) | Air (mg/m ³) |
|-------------------------------------|------------------------------|--------------------------|--------------|--------------------------|
| phosphoric acid | - | - | - | - |
| alkyl alcohol ethoxylate | - | - | - | - |
| alkyldimethylbenzylammoniumchloride | 0.267 | 0.0267 | 7 | - |

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet.

If available, please refer to the product information sheet for application and handling instructions.

Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

Appropriate engineering controls:

No special requirements under normal use conditions.

Appropriate organisational controls:

Avoid direct contact and/or splashes where possible Train personnel

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

Safety glasses or goggles (EN 166).

Hand protection:

Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.
Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: \geq 480 min
Material thickness: \geq 0.7 mm
Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: \geq 30 min
Material thickness: \geq 0.4 mm
In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.

Body protection:

No special requirements under normal use conditions.

Respiratory protection:

No special requirements under normal use conditions.

Environmental exposure controls:

Should not reach sewage water or drainage ditch undiluted or unneutralised.

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: Opaque, Blue | |
| Odour: Slightly perfumed | |
| Odour threshold: Not applicable | |
| pH: \leq 2 (neat) | 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) |
|-------------------------------------|------------|------------------|----------------------------|
| phosphoric acid | 158 | Method not given | 1013 |
| alkyl alcohol ethoxylate | > 232.2 | Method not given | |
| alkyldimethylbenzylammoniumchloride | > 107 | Method not given | |

Flash point (°C): Not applicable.**Sustained combustion:** Not applicable.**Evaporation rate:** Not determined**Flammability (solid, gas):** Not applicable to liquids**Method / remark**

Not relevant to classification of this product

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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) |
|-------------------------------------|---------------------|---------------------|
| alkyldimethylbenzylammoniumchloride | - | - |

Method / remark

Vapour pressure: Not determined

See substance data

Substance data, vapour pressure

| Ingredient(s) | Value (Pa) | Method | Temperature (°C) |
|-------------------------------------|------------|------------------|------------------|
| phosphoric acid | 4 | Method not given | 20 |
| alkyl alcohol ethoxylate | < 10 | Method not given | 37.8 |
| alkyldimethylbenzylammoniumchloride | 2300 | Method not given | 20 |

Method / remark

Vapour density: Not determined

Relative density: \approx 1.055 (20 °C)

Solubility in / Miscibility with Water: Fully miscible

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

Substance data, solubility in water

| Ingredient(s) | Value (g/l) | Method | Temperature (°C) |
|-------------------------------------|-------------|------------------|------------------|
| phosphoric acid | Soluble | | |
| alkyl alcohol ethoxylate | 100 Soluble | Method not given | |
| alkyldimethylbenzylammoniumchloride | Soluble | 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: \approx 58 mPa.s (20 °C)

Explosive properties: Not explosive.

Oxidising properties: Not oxidising

9.2 Other information

Surface tension (N/m): Not determined

Corrosion to metals: 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

Keep away from products containing chlorine-based bleaching agents or sulphites. Reacts with alkali and metals.

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): >5000

ATE - Dermal (mg/kg): >5000

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) |
|-------------------------------------|------------------|---------------|---------|------------------------|-------------------|
| phosphoric acid | LD ₅₀ | 2600 | Rat | OECD 423 (EU B.1 tris) | |
| alkyl alcohol ethoxylate | LD ₅₀ | 300 - 2000 | | Method not given | |
| alkyldimethylbenzylammoniumchloride | LD ₅₀ | 398 | Rat | | |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|-------------------------------------|------------------|---------------|---------|------------------|-------------------|
| phosphoric acid | LD ₅₀ | 2740 | Rabbit | Method not given | |
| alkyl alcohol ethoxylate | LD ₅₀ | 2000 - 5000 | Rat | Method not given | |
| alkyldimethylbenzylammoniumchloride | LD ₅₀ | 800 - 1420 | Rat | Method not given | |

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------------------------|------------------|-------------------|---------|------------------|-------------------|
| phosphoric acid | LC ₅₀ | 850 | Rat | Method not given | 2 |
| alkyl alcohol ethoxylate | | No data available | | | |
| alkyldimethylbenzylammoniumchloride | | No data available | | | |

Irritation and corrosivity

Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------------|--------------|---------|-------------------|---------------|
| phosphoric acid | Corrosive | Rabbit | OECD 404 (EU B.4) | |
| alkyl alcohol ethoxylate | Not irritant | | Method not given | |
| alkyldimethylbenzylammoniumchloride | Corrosive | | Method not given | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------------|---------------|---------|------------------|---------------|
| phosphoric acid | Severe damage | Rabbit | Method not given | |
| alkyl alcohol ethoxylate | Severe damage | Rabbit | Method not given | |
| alkyldimethylbenzylammoniumchloride | Severe damage | | Method not given | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------------|-------------------|---------|--------|---------------|
| phosphoric acid | No data available | | | |
| alkyl alcohol ethoxylate | No data available | | | |
| alkyldimethylbenzylammoniumchloride | No data available | | | |

Sensitisation

Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|-------------------------------------|-----------------|------------|------------------|-------------------|
| phosphoric acid | Not sensitising | Human | Human experience | |
| alkyl alcohol ethoxylate | Not sensitising | Guinea pig | Method not given | |
| alkyldimethylbenzylammoniumchloride | Not sensitising | | Method not given | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------------|-------------------|---------|--------|---------------|
| phosphoric acid | No data available | | | |
| alkyl alcohol ethoxylate | No data available | | | |
| alkyldimethylbenzylammoniumchloride | 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) |
|--------------------------|---|--|-------------------|------------------|
| phosphoric acid | No evidence for mutagenicity, negative test results | OECD 471 (EU B.12/13) OECD 473 OECD 476 (Mouse lymphoma) | No data available | |
| alkyl alcohol ethoxylate | No evidence for mutagenicity, negative test results | OECD 473 | No data available | |

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| | | | | |
|-------------------------------------|---|-----------------------|-------------------|--|
| alkyldimethylbenzylammoniumchloride | No evidence for mutagenicity, negative test results | OECD 471 (EU B.12/13) | No data available | |
|-------------------------------------|---|-----------------------|-------------------|--|

Carcinogenicity

| Ingredient(s) | Effect |
|-------------------------------------|--|
| phosphoric acid | No data available |
| alkyl alcohol ethoxylate | No evidence for carcinogenicity, negative test results |
| alkyldimethylbenzylammoniumchloride | 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 |
|-------------------------------------|----------|------------------------|--------------------|---------|----------------|---------------|--|
| phosphoric acid | NOAEL | Developmental toxicity | 410 | Rat | OECD 422, oral | 10 day(s) | No evidence for reproductive toxicity No evidence for developmental toxicity |
| alkyl alcohol ethoxylate | NOAEL | | > 250 | Rat | Not known | | No effects on fertility No developmental toxicity |
| alkyldimethylbenzylammoniumchloride | | | 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 |
|-------------------------------------|----------|--------------------|---------|------------------|----------------------|--------------------------------------|
| phosphoric acid | NOAEL | 250 | Rat | OECD 422, oral | | |
| alkyl alcohol ethoxylate | NOAEL | 80 - 400 | | Method not given | | |
| alkyldimethylbenzylammoniumchloride | | 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 |
|-------------------------------------|----------|--------------------|---------|--------------------|----------------------|--------------------------------------|
| phosphoric acid | | No data available | | | | |
| alkyl alcohol ethoxylate | NOAEL | 80 | | OECD 411 (EU B.28) | 90 | |
| alkyldimethylbenzylammoniumchloride | | 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 |
|-------------------------------------|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| phosphoric acid | | No data available | | | | |
| alkyl alcohol ethoxylate | | No data available | | | | |
| alkyldimethylbenzylammoniumchloride | | 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 |
|-------------------------------------|----------------|----------|--------------------|---------|--------|---------------|--------------------------------------|--------|
| phosphoric acid | | | No data available | | | | | |
| alkyl alcohol ethoxylate | | | No data available | | | | | |
| alkyldimethylbenzylammoniumchloride | | | No data available | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|-------------------------------------|-------------------|
| phosphoric acid | No data available |
| alkyl alcohol ethoxylate | No data available |
| alkyldimethylbenzylammoniumchloride | No data available |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|-------------------------------------|-------------------|
| phosphoric acid | No data available |
| alkyl alcohol ethoxylate | No data available |
| alkyldimethylbenzylammoniumchloride | No data available |

Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3. If relevant, see section 9 for dynamic viscosity and relative density of the product.

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

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------------------------|------------------|--------------|-------------------------|----------------------------|-------------------|
| phosphoric acid | LC ₅₀ | 138 | <i>Gambusia affinis</i> | Method not given | 96 |
| alkyl alcohol ethoxylate | LC ₅₀ | 5 - 7 | <i>Fish</i> | 92/69/EEC, C1, semi-static | 96 |
| alkyldimethylbenzylammoniumchloride | LC ₅₀ | > 0.1-1 | <i>Fish</i> | Method not given | 96 |

Aquatic short-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------------------------|------------------|--------------|-----------------------------|-------------------|-------------------|
| phosphoric acid | EC ₅₀ | > 100 | <i>Daphnia magna</i> Straus | OECD 202 (EU C.2) | 48 |
| alkyl alcohol ethoxylate | EC ₅₀ | 5.3 | <i>Daphnia</i> | 92/69/EEC | 48 |
| alkyldimethylbenzylammoniumchloride | EC ₅₀ | 0.02 | <i>Daphnia</i> | Method not given | 48 |

Aquatic short-term toxicity - algae

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------------------------|------------------|--------------|--|-------------------|-------------------|
| phosphoric acid | EC ₅₀ | > 100 | <i>Desmodesmus subspicatus</i> | OECD 201 (EU C.3) | 72 |
| alkyl alcohol ethoxylate | EC ₅₀ | 1.4 - 47 | <i>Not specified</i> | 92/69/EEC | 72 |
| alkyldimethylbenzylammoniumchloride | EC ₅₀ | 0.06 | <i>Pseudokirchneriella subcapitata</i> | OECD 201 (EU C.3) | 96 |

Aquatic short-term toxicity - marine species

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (days) |
|-------------------------------------|----------|-------------------|---------|--------|----------------------|
| phosphoric acid | | No data available | | | - |
| alkyl alcohol ethoxylate | | No data available | | | - |
| alkyldimethylbenzylammoniumchloride | | No data available | | | - |

Impact on sewage plants - toxicity to bacteria

| Ingredient(s) | Endpoint | Value (mg/l) | Inoculum | Method | Exposure time |
|-------------------------------------|------------------|--------------|-------------------------|------------------|---------------|
| phosphoric acid | EC ₅₀ | 270 | <i>Activated sludge</i> | Method not given | |
| alkyl alcohol ethoxylate | EC ₅₀ | > 140 | <i>Bacteria</i> | Method not given | 3 hour(s) |
| alkyldimethylbenzylammoniumchloride | EC ₂₀ | 10 | <i>Activated sludge</i> | OECD 209 | 0.5 hour(s) |

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|-------------------------------------|------------------|-------------------|----------------------|------------------|---------------|------------------|
| phosphoric acid | | No data available | | | | |
| alkyl alcohol ethoxylate | EC ₁₀ | 8.983 | <i>Not specified</i> | Method not given | 21 day(s) | |
| alkyldimethylbenzylammoniumchloride | | No data available | | | | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|-------------------------------------|------------------|-------------------|--------------------|------------------|---------------|------------------|
| phosphoric acid | | No data available | | | | |
| alkyl alcohol ethoxylate | EC ₁₀ | 2.579 | <i>Daphnia sp.</i> | Method not given | 21 day(s) | |
| alkyldimethylbenzylammoniumchloride | | 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 |
|-------------------------------------|----------|---------------------------|---------|--------|----------------------|------------------|
| phosphoric acid | | No data available | | | - | |
| alkyl alcohol ethoxylate | | No data available | | | - | |
| alkyldimethylbenzylammoniumchloride | | 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 |
|-------------------------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| phosphoric acid | | No data available | | | - | |
| alkyl alcohol ethoxylate | | No data available | | | - | |
| alkyldimethylbenzylammoniumchloride | | No data available | | | - | |

Terrestrial toxicity - plants, if available:

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

Terrestrial toxicity - birds, if available:

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure time (days) | Effects observed |
|-------------------------------------|----------|-------------------|---------|--------|----------------------|------------------|
| phosphoric acid | | No data available | | | - | |
| alkyl alcohol ethoxylate | | No data available | | | - | |
| alkyldimethylbenzylammoniumchloride | | No data available | | | - | |

Terrestrial toxicity - beneficial insects, if available:

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

Terrestrial toxicity - soil bacteria, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|-------------------------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| phosphoric acid | | No data available | | | - | |
| alkyl alcohol ethoxylate | | No data available | | | - | |
| alkyldimethylbenzylammoniumchloride | | 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:

Biodegradation

Ready biodegradability - aerobic conditions

| Ingredient(s) | Inoculum | Analytical method | DT ₅₀ | Method | Evaluation |
|--------------------------|----------|-------------------|-------------------|------------------|--------------------------------------|
| phosphoric acid | | | | | Not applicable (inorganic substance) |
| alkyl alcohol ethoxylate | | | 60 % in 28 day(s) | Method not given | Readily biodegradable |

Shield 3 Way Toilet Cleaner

| | | | | | |
|-------------------------------------|--|------------------|-------|-----------|-----------------------|
| alkyldimethylbenzylammoniumchloride | | Oxygen depletion | > 60% | OECD 301D | 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 |
|-------------------------------------|-------------------|------------------|------------------------------------|--------|
| phosphoric acid | No data available | | No bioaccumulation expected | |
| alkyl alcohol ethoxylate | 3.11 - 4.19 | Method not given | High potential for bioaccumulation | |
| alkyldimethylbenzylammoniumchloride | 0.5 - 1.58 | Method not given | No bioaccumulation expected | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|-------------------------------------|-------------------|---------|------------------|------------------------------------|--------|
| phosphoric acid | No data available | | | No bioaccumulation expected | |
| alkyl alcohol ethoxylate | < 500 | | Method not given | High potential for bioaccumulation | |
| alkyldimethylbenzylammoniumchloride | 0.5 | | Method not given | No bioaccumulation expected | |

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 |
|-------------------------------------|--------------------------------|-------------------------------------|--------|--------------------|--|
| phosphoric acid | No data available | | | | Potential for mobility in soil, soluble in water |
| alkyl alcohol ethoxylate | No data available | | | | Potential for mobility in soil, soluble in water |
| alkyldimethylbenzylammoniumchloride | 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:

The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.

European Waste Catalogue:

20 01 29* - detergents containing dangerous substances.

Empty packaging

Recommendation:

Dispose of observing national or local regulations.

Suitable cleaning agents:

Water, if necessary with cleaning agent.

SECTION 14: Transport information

Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

14.1 UN number: 1805

14.2 UN proper shipping name:

Phosphoric acid, solution

14.3 Transport hazard class(es):

Class: 8

Label(s): 8

14.4 Packing group: III

14.5 Environmental hazards:

Environmentally hazardous: No

Marine pollutant: No

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: The product is not transported in bulk tankers.

Other relevant information:

Shield 3 Way Toilet Cleaner

ADR

Classification code: C1

Tunnel restriction code: E

Hazard identification number: 80

IMO/MDG

EmS: F-A, S-B

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

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations:**

- Regulation (EC) No. 1907/2006 - REACH
- Regulation (EC) No 1272/2008 - CLP

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, cationic surfactants

< 5 %

perfumes, Benzyl Salicylate, Butylphenyl Methylpropional, Hexyl Cinnamal, Limonene

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

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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:

- H400 - Very toxic to aquatic life.
- H312 - Harmful in contact with skin.
- H314 - Causes severe skin burns and eye damage.
- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H318 - Causes serious eye damage.
- H410 - Very toxic 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

End of Safety Data Sheet