

Suma Shine K2

Revision: 2016-01-14

Version: 01.0

SECTION 1: Identification of the substance/mixture and supplier

1.1 Product identifier

Product name: Suma Shine K2

1.2 Recommended use and restrictions on use

Identified uses:

Utensil presoak and destainer

Restrictions of use:

Uses other than those identified are not recommended

1.3 Details of the supplier

Diversey Australia Pty. Limited
29 Chifley St, Smithfield, NSW, 2164, Australia
Telephone: 1800 647 779 (toll free)
Fax: (02) 9725 5767
Email: aucustserv@sealedair.com
Website: <http://www.sealedair.com/>

1.4 Emergency telephone number

Call 1800 033 111 (24hrs)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Serious eye damage, Category 1
Skin irritation, Category 2

2.2 Label elements



Signal word: Danger

Hazard statements:

H315 - Causes skin irritation.
H318 - Causes serious eye damage.

Prevention statement(s):

P233 - Keep container tightly closed.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P280 - Wear protective gloves, protective clothing and eye or face protection.

Response statement(s):

P332 + P313 - If skin irritation occurs: Get medical advice or attention.
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P321 - Specific treatment (see supplemental first aid instructions on this label).
P362 - Take off contaminated clothing.

Disposal statement(s):

P501 - Dispose of unused content as chemical waste.

2.3 Other hazards

No other hazards known.

2.4 Classification diluted product:

Recommended maximum concentration (%): 2

Not classified

SECTION 3: Composition/information on ingredients**3.1 Substances / Mixtures**

| Ingredient(s) | CAS number | EC number | Classification | Weight percent |
|-------------------------------|------------|-----------|--|----------------|
| sodium carbonate | 497-19-8 | 207-838-8 | Eye Irrit. 2 (H319) | 30-60 |
| sodium percarbonate | 15630-89-4 | 239-707-6 | Ox. Sol. 2 (H272) Acute Tox. 4 (H302) Eye Dam. 1 (H318) | 10-30 |
| disodium metasilicate | 6834-92-0 | 229-912-9 | Skin Corr. 1B (H314) STOT SE 3 (H335) Met. Corr. 1 (H290) | 3-10 |
| disodium trisilicate | 1344-09-8 | 215-687-4 | STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) | 3-10 |
| white mineral oil (petroleum) | 8042-47-5 | 232-455-8 | Asp. Tox. 1 (H304) | 1-3 |
| sodium alkybenzenesulphonate | 90194-45-9 | 290-656-6 | Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) | 1-3 |

Non-hazardous ingredients are the remainder and add up to 100%.

For the full text of the H phrases mentioned in this Section, see Section 16.
Workplace exposure limit(s), if available, are listed in subsection 8.1.**SECTION 4: First aid measures****4.1 Description of first aid measures****Inhalation:**

Remove person to fresh air and keep comfortable for breathing. 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:

Immediately rinse eyes cautiously with lukewarm water for several 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. Get medical attention or advice if you feel unwell.

Self-protection of first aider:

Consider personal protective equipment as indicated in subsection 8.2.

First aid facilities:

Eyewash facilities should be considered in a workplace where necessary.

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.

Poison Information Center:

Call 13 11 26 (Australia Wide).

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.

5.4 Hazchem code*None allocated***SECTION 6: Accidental release measures**

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6.1 Personal precautions, protective equipment and emergency procedures

Wear suitable protective clothing, gloves and eye/face protection.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up

Collect mechanically.

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) | Long term value(s) (TWA) | Short term value(s) (STEL) | Peak value(s) |
|-------------------------------|-----------------------------|-------------------------------|---------------|
| white mineral oil (petroleum) | 5 mg/m ³ | | |

Biological limit values, if 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.

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:

If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required.

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: >= 480 min

Material thickness: >= 0.7 mm

Suggested gloves for protection against splashes:

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Material: nitrile rubber
 Penetration time: ≥ 30 min
 Material thickness: ≥ 0.4 mm

Body protection: In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.
 Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur.

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 (%): 2

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

Personal protective equipment

Eye / face protection: Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product.

Hand protection: Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.

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

Method / remark

Physical State: Solid
Appearance: Powder
Colour: White
Odour: Product specific
Odour threshold: Not applicable
pH: Not applicable.
Dilution pH: > 11 (1%)
Melting point/freezing point (°C): Not determined
Initial boiling point and boiling range (°C): Not determined
Flash point (°C): Not applicable.
Sustained combustion: Not applicable.
Evaporation rate: Not determined
Flammability (solid, gas): Not determined
Upper/lower flammability limit (%): Not determined
Vapour pressure: Not determined
Vapour density: Not determined
Relative density: 1.05 g/cm³ (20 °C)
Solubility in / Miscibility with Water: Soluble
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 applicable to solids or gases

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 acids.

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): 2800

Skin irritation and corrosivity

Result: Not corrosive

Method: OECD 431 (EU B.40 bis), Episkin

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

Acute toxicity

Acute oral toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|-------------------------------|------------------|-------------------|---------|------------------|-------------------|
| sodium carbonate | LD ₅₀ | 2800 | Rat | Method not given | |
| sodium percarbonate | LD ₅₀ | 1034 | Rat | Method not given | |
| disodium metasilicate | LD ₅₀ | 770 - 820 | Mouse | Method not given | |
| disodium trisilicate | LD ₅₀ | 3400 | Rat | Method not given | |
| white mineral oil (petroleum) | | No data available | | | |
| sodium alkylbenzenesulphonate | | No data available | | | |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|-------------------------------|------------------|-------------------|---------|-------------------|-------------------|
| sodium carbonate | LD ₅₀ | > 2000 | Rabbit | Method not given | |
| sodium percarbonate | LD ₅₀ | > 2000 | Rabbit | OECD 402 (EU B.3) | |
| disodium metasilicate | | No data available | | | |
| disodium trisilicate | LD ₅₀ | > 5000 | Rat | Method not given | |
| white mineral oil (petroleum) | | No data available | | | |
| sodium alkylbenzenesulphonate | | No data available | | | |

Acute inhalative toxicity

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------------------|------------------|-----------------------|---------|--------------------|-------------------|
| sodium carbonate | LC ₅₀ | 2.3 (dust) | Rat | OECD 403 (EU B.2) | 2 |
| sodium percarbonate | | No data available | | | |
| disodium metasilicate | | No data available | | | |
| disodium trisilicate | | No mortality observed | Rat | Non guideline test | 4 |
| white mineral oil (petroleum) | | No data available | | | |
| sodium alkylbenzenesulphonate | | No data available | | | |

Irritation and corrosivity

Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------|-------------------|---------|------------------|---------------|
| sodium carbonate | Not irritant | Rabbit | Method not given | |
| sodium percarbonate | Not irritant | Rabbit | Method not given | |
| disodium metasilicate | Corrosive | | Method not given | |
| disodium trisilicate | Irritant | | Method not given | |
| white mineral oil (petroleum) | No data available | | | |
| sodium alkylbenzenesulphonate | No data available | | | |

Eye irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------|-------------------|---------|------------------|---------------|
| sodium carbonate | Irritant | Rabbit | Method not given | |
| sodium percarbonate | Severe damage | Rabbit | EPA OPP 81-4 | |
| disodium metasilicate | Corrosive | | Method not given | |
| disodium trisilicate | Severe damage | | Method not given | |
| white mineral oil (petroleum) | No data available | | | |
| sodium alkylbenzenesulphonate | No data available | | | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------|---------------------------------|---------|------------------|---------------|
| sodium carbonate | No data available | | | |
| sodium percarbonate | Irritating to respiratory tract | Mouse | Method not given | |
| disodium metasilicate | No data available | | | |
| disodium trisilicate | Irritating to respiratory tract | | Method not given | |
| white mineral oil (petroleum) | No data available | | | |
| sodium alkylbenzenesulphonate | No data available | | | |

Sensitisation

Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|-------------------------------|-------------------|------------|----------------------------------|-------------------|
| sodium carbonate | Not sensitising | | Method not given | |
| sodium percarbonate | Not sensitising | Guinea pig | OECD 406 (EU B.6) / Buehler test | |
| disodium metasilicate | No data available | | | |
| disodium trisilicate | Not sensitising | | Method not given | |
| white mineral oil (petroleum) | No data available | | | |
| sodium alkylbenzenesulphonate | No data available | | | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|-------------------------------|-------------------|---------|--------|---------------|
| sodium carbonate | No data available | | | |
| sodium percarbonate | No data available | | | |
| disodium metasilicate | No data available | | | |
| disodium trisilicate | No data available | | | |
| white mineral oil (petroleum) | No data available | | | |
| sodium alkylbenzenesulphonate | 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) |
|-------------------------------|---|-------------------|-------------------|------------------|
| sodium carbonate | No data available | | No data available | |
| sodium percarbonate | No data available | | No data available | |
| disodium metasilicate | No data available | | No data available | |
| disodium trisilicate | No evidence for mutagenicity, negative test results | | No data available | |
| white mineral oil (petroleum) | No data available | | No data available | |
| sodium alkylbenzenesulphonate | No data available | | No data available | |

Carcinogenicity

| Ingredient(s) | Effect |
|-------------------------------|--|
| sodium carbonate | No evidence for carcinogenicity, weight-of-evidence |
| sodium percarbonate | No data available |
| disodium metasilicate | No data available |
| disodium trisilicate | No evidence for carcinogenicity, negative test results |
| white mineral oil (petroleum) | No data available |
| sodium alkylbenzenesulphonate | 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 |
|-----------------------|----------|-----------------|--------------------|---------|--------|---------------|------------------------------------|
| sodium carbonate | | | No data available | | | | |
| sodium percarbonate | | | No data available | | | | |
| disodium metasilicate | | | No data available | | | | |
| disodium trisilicate | | | No data | | | | No evidence for reproductive |

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|-------------------------------|--|--|-------------------|--|--|--|----------|
| | | | available | | | | toxicity |
| white mineral oil (petroleum) | | | No data available | | | | |
| sodium alkylbenzenesulphonate | | | 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 |
|-------------------------------|----------|--------------------|---------|------------------|----------------------|--------------------------------------|
| sodium carbonate | | No data available | | | | |
| sodium percarbonate | | No data available | | | | |
| disodium metasilicate | NOAEL | > 227 - 237 | Rat | Method not given | | |
| disodium trisilicate | NOAEL | > 159 | Rat | Method not given | 180 | No effects observed |
| white mineral oil (petroleum) | | No data available | | | | |
| sodium alkylbenzenesulphonate | | 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 |
|-------------------------------|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| sodium carbonate | | No data available | | | | |
| sodium percarbonate | | No data available | | | | |
| disodium metasilicate | | No data available | | | | |
| disodium trisilicate | | No data available | | | | |
| white mineral oil (petroleum) | | No data available | | | | |
| sodium alkylbenzenesulphonate | | 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 |
|-------------------------------|----------|--------------------|---------|--------|----------------------|--------------------------------------|
| sodium carbonate | | No data available | | | | |
| sodium percarbonate | | No data available | | | | |
| disodium metasilicate | | No data available | | | | |
| disodium trisilicate | | No data available | | | | |
| white mineral oil (petroleum) | | No data available | | | | |
| sodium alkylbenzenesulphonate | | 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 |
|-------------------------------|----------------|----------|--------------------|---------|--------|---------------|--------------------------------------|--------|
| sodium carbonate | | | No data available | | | | | |
| sodium percarbonate | | | No data available | | | | | |
| disodium metasilicate | | | No data available | | | | | |
| disodium trisilicate | | | No data available | | | | | |
| white mineral oil (petroleum) | | | No data available | | | | | |
| sodium alkylbenzenesulphonate | | | No data available | | | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|-------------------------------|-------------------|
| sodium carbonate | No data available |
| sodium percarbonate | No data available |
| disodium metasilicate | No data available |
| disodium trisilicate | No data available |
| white mineral oil (petroleum) | No data available |
| sodium alkylbenzenesulphonate | No data available |

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STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|-------------------------------|-------------------|
| sodium carbonate | No data available |
| sodium percarbonate | No data available |
| disodium metasilicate | No data available |
| disodium trisilicate | Not applicable |
| white mineral oil (petroleum) | No data available |
| sodium alkylbenzenesulphonate | 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) |
|-------------------------------|------------------|-------------------|----------------------------|------------------|-------------------|
| sodium carbonate | LC ₅₀ | 300 | <i>Lepomis macrochirus</i> | Method not given | 96 |
| sodium percarbonate | LC ₅₀ | 70.7 | <i>Pimephales promelas</i> | Method not given | 96 |
| disodium metasilicate | LC ₅₀ | 210 | <i>Brachydanio rerio</i> | Method not given | 96 |
| disodium trisilicate | LC ₅₀ | 260 - 310 | <i>Oncorhynchus mykiss</i> | Method not given | 96 |
| white mineral oil (petroleum) | | No data available | | | |
| sodium alkylbenzenesulphonate | | No data available | | | |

Aquatic short-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------------------|------------------|-------------------|-----------------------------|------------------|-------------------|
| sodium carbonate | EC ₅₀ | 265 | <i>Daphnia magna Straus</i> | Method not given | 96 |
| sodium percarbonate | EC ₅₀ | 4.9 | <i>Daphnia pulex</i> | Method not given | 48 |
| disodium metasilicate | EC ₅₀ | 1700 | <i>Daphnia</i> | Method not given | 48 |
| disodium trisilicate | EC ₅₀ | 1700 | <i>Daphnia magna Straus</i> | OECD 202, static | 48 |
| white mineral oil (petroleum) | | No data available | | | |
| sodium alkylbenzenesulphonate | | No data available | | | |

Aquatic short-term toxicity - algae

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-------------------------------|------------------|-------------------|--------------------------------|-------------------|-------------------|
| sodium carbonate | | No data available | | | - |
| sodium percarbonate | | No data available | | | - |
| disodium metasilicate | EC ₅₀ | 207 | <i>Chlorella pyrenoidosa</i> | Method not given | 72 |
| disodium trisilicate | EC ₅₀ | 207 | <i>Desmodesmus subspicatus</i> | DIN 38412, Part 9 | 72 |
| white mineral oil (petroleum) | | No data available | | | |
| sodium alkylbenzenesulphonate | | No data available | | | |

Aquatic short-term toxicity - marine species

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (days) |
|------------------|----------|--------------|---------|--------|----------------------|
| sodium carbonate | | No data | | | - |

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|-------------------------------|--|-------------------|--|--|---|
| | | available | | | |
| sodium percarbonate | | No data available | | | - |
| disodium metasilicate | | No data available | | | - |
| disodium trisilicate | | No data available | | | - |
| white mineral oil (petroleum) | | No data available | | | |
| sodium alkylbenzenesulphonate | | No data available | | | |

Impact on sewage plants - toxicity to bacteria

| Ingredient(s) | Endpoint | Value (mg/l) | Inoculum | Method | Exposure time |
|-------------------------------|------------------|-------------------|------------------|------------------|---------------|
| sodium carbonate | | No data available | | | |
| sodium percarbonate | EC ₅₀ | 466 | Activated sludge | OECD 209 | 0.5 hour(s) |
| disodium metasilicate | EC ₅₀ | > 100 | Activated sludge | Method not given | 3 hour(s) |
| disodium trisilicate | | No data available | | | |
| white mineral oil (petroleum) | | No data available | | | |
| sodium alkylbenzenesulphonate | | No data available | | | |

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|-------------------------------|----------|-------------------|----------------------------|------------------|---------------|------------------|
| sodium carbonate | | No data available | | | | |
| sodium percarbonate | NOEC | 7.4 | <i>Pimephales promelas</i> | Method not given | 96 hour(s) | |
| disodium metasilicate | | No data available | | | | |
| disodium trisilicate | NOEC | 348 | <i>Brachydanio rerio</i> | Method not given | 96 hour(s) | |
| white mineral oil (petroleum) | | No data available | | | | |
| sodium alkylbenzenesulphonate | | No data available | | | | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|-------------------------------|----------|-------------------|----------------------|------------------|---------------|------------------|
| sodium carbonate | | No data available | | | | |
| sodium percarbonate | NOEC | 2 | <i>Daphnia pulex</i> | Method not given | 48 hour(s) | |
| disodium metasilicate | | No data available | | | | |
| disodium trisilicate | | No data available | | | | |
| white mineral oil (petroleum) | | No data available | | | | |
| sodium alkylbenzenesulphonate | | 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 |
|-------------------------------|----------|---------------------------|---------|--------|----------------------|------------------|
| sodium carbonate | | No data available | | | - | |
| sodium percarbonate | | No data available | | | - | |
| disodium metasilicate | | No data available | | | - | |
| disodium trisilicate | | No data available | | | - | |
| white mineral oil (petroleum) | | No data available | | | | |
| sodium alkylbenzenesulphonate | | No data available | | | | |

Terrestrial toxicity

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

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure | Effects observed |
|---------------|----------|-------|---------|--------|----------|------------------|
|---------------|----------|-------|---------|--------|----------|------------------|

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| | | (mg/kg dw soil) | | | time (days) | |
|-----------------------|--|-------------------|--|--|-------------|--|
| sodium carbonate | | No data available | | | - | |
| sodium percarbonate | | No data available | | | - | |
| disodium metasilicate | | No data available | | | - | |
| disodium trisilicate | | No data available | | | - | |

Terrestrial toxicity - plants, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|-----------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| sodium carbonate | | No data available | | | - | |
| sodium percarbonate | | No data available | | | - | |
| disodium metasilicate | | No data available | | | - | |
| disodium trisilicate | | No data available | | | - | |

Terrestrial toxicity - birds, if available:

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure time (days) | Effects observed |
|-----------------------|----------|-------------------|---------|--------|----------------------|------------------|
| sodium carbonate | | No data available | | | - | |
| sodium percarbonate | | No data available | | | - | |
| disodium metasilicate | | No data available | | | - | |
| disodium trisilicate | | No data available | | | - | |

Terrestrial toxicity - beneficial insects, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|-----------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| sodium carbonate | | No data available | | | - | |
| sodium percarbonate | | No data available | | | - | |
| disodium metasilicate | | No data available | | | - | |
| disodium trisilicate | | No data available | | | - | |

Terrestrial toxicity - soil bacteria, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw soil) | Species | Method | Exposure time (days) | Effects observed |
|-----------------------|----------|-----------------------|---------|--------|----------------------|------------------|
| sodium carbonate | | No data available | | | - | |
| sodium percarbonate | | No data available | | | - | |
| disodium metasilicate | | No data available | | | - | |
| disodium trisilicate | | 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 |
|---------------------|----------------|------------------|------------|--------|
| sodium percarbonate | NA | Method not given | | |

Abiotic degradation - hydrolysis, if available:

| Ingredient(s) | Half-life time in fresh water | Method | Evaluation | Remark |
|---------------------|-------------------------------|------------------|----------------------|--------|
| sodium carbonate | No data available | | Rapidly hydrolysible | |
| sodium percarbonate | < 1 day(s) | Method not given | Hydrolysible | |

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

| Ingredient(s) | Inoculum | Analytical method | DT ₅₀ | Method | Evaluation |
|---------------|----------|-------------------|------------------|--------|------------|
|---------------|----------|-------------------|------------------|--------|------------|

Suma Shine K2

| | | | | | |
|-------------------------------|--|--|--|--|--------------------------------------|
| sodium carbonate | | | | | Not applicable (inorganic substance) |
| sodium percarbonate | | | | | Not applicable (inorganic substance) |
| disodium metasilicate | | | | | Not applicable (inorganic substance) |
| disodium trisilicate | | | | | Not applicable (inorganic substance) |
| white mineral oil (petroleum) | | | | | No data available |
| sodium alkylbenzenesulphonate | | | | | No data available |

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 |
|-------------------------------|-------------------|--------|-----------------------------------|--------|
| sodium carbonate | No data available | | No bioaccumulation expected | |
| sodium percarbonate | No data available | | | |
| disodium metasilicate | No data available | | | |
| disodium trisilicate | No data available | | Low potential for bioaccumulation | |
| white mineral oil (petroleum) | No data available | | | |
| sodium alkylbenzenesulphonate | No data available | | | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|-------------------------------|-------------------|---------|--------|-----------------------------|--------|
| sodium carbonate | No data available | | | No bioaccumulation expected | |
| sodium percarbonate | No data available | | | | |
| disodium metasilicate | No data available | | | | |
| disodium trisilicate | No data available | | | | |
| white mineral oil (petroleum) | No data available | | | | |
| sodium alkylbenzenesulphonate | 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 |
|-------------------------------|--------------------------------|-------------------------------------|--------|--------------------|--|
| sodium carbonate | No data available | | | | Potential for mobility in soil, soluble in water |
| sodium percarbonate | No data available | | | | High potential for mobility in soil |
| disodium metasilicate | No data available | | | | |
| disodium trisilicate | No data available | | | | |
| white mineral oil (petroleum) | No data available | | | | |
| sodium alkylbenzenesulphonate | No data available | | | | |

12.5 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.

Empty packaging

Recommendation:

Dispose of observing national or local regulations.

SECTION 14: Transport information

ADG, IMO/IMDG, ICAO/IATA

14.1 UN number: Non-dangerous goods

14.2 UN proper shipping name: Non-dangerous goods

14.3 Transport hazard class(es): Non-dangerous goods

14.4 Packing group: Non-dangerous goods

14.5 Environmental hazards: Non-dangerous goods

Suma Shine K2

14.6 Special precautions for user: Non-dangerous goods

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

Hazchem code: None allocated

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

| | |
|-----------------------------|--|
| Poison schedule | Classified as a Schedule 5 (S5) Poison using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP). |
| Inventory listing(s) | AICS (Australian Inventory of Chemical Substances): All components are listed on AICS, or are exempt |

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

- H272 - May intensify fire; oxidiser.
- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H304 - May be fatal if swallowed and enters airways.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.
- H335 - May cause respiratory irritation.

Exposure standards - Time Weighted Average (TWA) or Workplace Exposure Standard (WES) (NZ): Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

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