

Safety Data Sheet

Diverfoam SMS Chlor

Revision: 2015-04-15

Version: 01.0

SECTION 1: Identification of the substance/mixture and supplier

1.1 Product identifier Product name: Diverfoam SMS Chlor

1.2 Recommended use and restrictions on use Identified uses: Chlorinated foam cleaner. 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: (02) 9757 0300 Fax: (02) 9725 5767 Email: aucustserv@sealedair.com Website: http://www.diversey.com

1.4 Emergency telephone number Call 1800 033 111 (24hrs)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classified as hazardous according to Safe Work Australia criteria.

AUH031 Skin corrosion, Category 1B

2.2 Label elements



Signal word: Danger

Hazard statements:

AUH031 - Contact with acids liberates toxic gas. H314 - Causes severe skin burns and eye damage.

Prevention statement(s):

P260 - Do not breathe vapours.

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):

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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).

P363 - Wash contaminated clothing before reuse.

Storage statement(s):

P405 - Store locked up.



Disposal statement(s):

P501 - Dispose of unused content as chemical waste.

2.3 Other hazards

No other hazards known.

SECTION 3: Composition/information on ingredients

3.1 Substances / Mixtures

| Ingredient(s) | CAS number | EC number | Classification | Weight percent |
|-----------------------------|------------|-----------|--|----------------|
| Lauryl dimethyl amine oxide | 1643-20-5 | 216-700-6 | Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411) | 3-10 |
| sodium hypochlorite | 7681-52-9 | 231-668-3 | AUH031 Skin Corr. 1B (H314) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Met. Corr. 1 (H290) | 1-3 |
| potassium hydroxide | 1310-58-3 | 215-181-3 | Skin Corr. 1A (H314) Acute Tox. 4 (H302) Met. Corr. 1 (H290) | 0.1-1 |
| sodium hydroxide | 1310-73-2 | 215-185-5 | Skin Corr. 1A (H314) Met. Corr. 1 (H290) | 0.1-1 |

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

Workplace exposure limit(s), if available, are listed in subsection 8.1. For the full text of the H and AUH phrases mentioned in this Section, see Section 16.

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: Take off immediately all contaminated clothing and wash it before re-use. Immediately call a POISON CENTRE, doctor or physician. Immediately rinse eyes cautiously with lukewarm water for several minutes. Remove contact lenses, Eye contact: if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE, doctor or physician. Rinse mouth. Immediately drink 1 glass of water. Do NOT induce vomiting. Keep at rest. Ingestion: Immediately call a POISON CENTRE, doctor or physician. Consider personal protective equipment as indicated in subsection 8.2. Self-protection of first aider: First aid facilities: Shower and eyewash facilities should be considered in a workplace where necessary. 4.2 Most important symptoms and effects, both acute and delayed May cause bronchospasm in chlorine sensitive individuals. Inhalation: Causes severe burns. Skin contact: Eye contact: Causes severe or permanent damage. Ingestion: Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

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

2R

2 - Fine water spray.

R - Liquid-tight chemical protective clothing and breathing apparatus. Dilute.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Do not breathe dust or vapour. In case of an incident in a confined area wear suitable respiratory protection. Wear suitable protective clothing, gloves and 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

Use neutralising agent. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Ensure adequate ventilation.

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 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 skin and eyes. Do not breathe vapours. 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) |
|---------------------|-----------------------------|-------------------------------|---------------------|
| potassium hydroxide | | | 2 mg/m ³ |
| sodium hydroxide | | | 2 mg/m ³ |

Biological limit values, if available:

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2. If available, please refer to the product information sheet for application and handling instructions. Normal use conditions are assumed for this section.

Recommended safety measures for handling the <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 or goggles (EN 166). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur. |
| 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: 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.Body protection:Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may
occur.Respiratory protection:Respiratory protection is not normally required. However, inhalation of vapour, spray, gas or
aerosols should be avoided.

Environmental exposure controls:

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

Method / remark

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State: Liquid Colour: Clear, Brown Odour: Product specific Odour threshold: Not applicable **pH:** ≈ 13 (neat) Melting point/freezing point (°C): Not determined Initial boiling point and boiling range (°C): Not determined Flash point (°C): Not applicable. Sustained combustion: Not determined 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: Not determined Solubility in / Miscibility with Water: Fully miscible Autoignition temperature: Not determined Decomposition temperature: Not determined Viscosity: Not determined Explosive properties: Not explosive. Oxidising properties: Not oxidising

9.2 Other information Surface tension (N/m): Not determined Corrosion to metals: Not corrosive

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

Contact with acids liberates toxic gas. Reacts with acids. Keep away from acids.

10.6 Hazardous decomposition products

None known under normal storage and use conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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) |
|-----------------------------|----------|----------------------|---------|------------------|----------------------|
| Lauryl dimethyl amine oxide | | No data available | | | |
| sodium hypochlorite | LD 50 | > 1100 | Rat | Method not given | - |
| potassium hydroxide | LD 50 | 333 | Rat | OECD 425 | |
| sodium hydroxide | | No data available | | | |

Acute dermal toxicity

| Ingredient(s) | Endpoint | Value (mg/kg) | Species | Method | Exposure time (h) |
|-----------------------------|----------|----------------------|---------|------------------|----------------------|
| Lauryl dimethyl amine oxide | | No data available | | | |
| sodium hypochlorite | LD 50 | > 20000 | Rabbit | Method not given | - |
| potassium hydroxide | | No data available | | | |
| sodium hydroxide | | No data available | | | |

| Acute inhalative toxicity | | | | | |
|-----------------------------|----------|----------------------|---------|-------------------|----------------------|
| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
| Lauryl dimethyl amine oxide | | No data available | | | |
| sodium hypochlorite | LC o | > 10.5 (vapour) | Rat | OECD 403 (EU B.2) | 1 |
| potassium hydroxide | | No data available | | | |
| sodium hydroxide | | No data available | | | |

Irritation and corrosivity Skin irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-----------------------------|-------------------|---------|------------------|---------------|
| Lauryl dimethyl amine oxide | No data available | | | |
| sodium hypochlorite | Corrosive | Rabbit | Method not given | |
| potassium hydroxide | Corrosive | Rabbit | Draize test | |
| sodium hydroxide | Corrosive | Rabbit | Method not given | |

| Ingredient(s) | Result | Species | Method | Exposure time |
|-----------------------------|-------------------|---------|------------------|---------------|
| Lauryl dimethyl amine oxide | No data available | | | |
| sodium hypochlorite | Severe damage | Rabbit | Method not given | |
| potassium hydroxide | Corrosive | | Method not given | |
| sodium hydroxide | Corrosive | Rabbit | Method not given | |

Respiratory tract irritation and corrosivity

| Ingredient(s) | Result | Species | Method | Exposure time |
|-----------------------------|------------------------------------|---------|--------|---------------|
| Lauryl dimethyl amine oxide | No data available | | | |
| sodium hypochlorite | Irritating to respiratory tract | | | |
| potassium hydroxide | No data available | | | |
| sodium hydroxide | No data available | | | |

Sensitisation

Sensitisation by skin contact

| Ingredient(s) | Result | Species | Method | Exposure time (h) |
|-----------------------------|-------------------|------------|---------------------------|-------------------|
| Lauryl dimethyl amine oxide | No data available | | | |
| sodium hypochlorite | Not sensitising | Guinea pig | Method not given | - |
| potassium hydroxide | Not sensitising | Guinea pig | Method not given | |
| sodium hydroxide | Not sensitising | | Human repeated patch test | |

Sensitisation by inhalation

| Ingredient(s) | Result | Species | Method | Exposure time |
|-----------------------------|----------------------|---------|--------|---------------|
| Lauryl dimethyl amine oxide | No data available | | | |
| sodium hypochlorite Page | • 150/data available | | | - |

| potassium hydroxide | No data available | | |
|---------------------|-------------------|--|--|
| sodium hydroxide | No data available | | |

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

| Ingredient(s) | Result (in-vitro) | Method (in-vitro) | Result (in-vivo) | Method (in-vivo) |
|-----------------------------|---|----------------------|---|---|
| Lauryl dimethyl amine oxide | No data available | | No data available | |
| sodium hypochlorite | No evidence for mutagenicity | | No evidence for mutagenicity, negative test results | Method not given |
| potassium hydroxide | No evidence for mutagenicity, negative test results | Method not given | No data available | |
| sodium hydroxide | No evidence for mutagenicity, negative test results | 1 1 | No evidence for mutagenicity, negative test results | OECD 474 (EL B.12) OECD 475 (EU B.11) |

Carcinogenicity

| Ingredient(s) | Effect |
|-----------------------------|--|
| Lauryl dimethyl amine oxide | No data available |
| sodium hypochlorite | No evidence for carcinogenicity, negative test results |
| potassium hydroxide | No evidence for carcinogenicity, negative test results |
| sodium hydroxide | No evidence for carcinogenicity, weight-of-evidence |

Toxicity for reproduction

| Ingredient(s) | Endpoint | Specific effect | Value (mg/kg bw/d) | Species | Method | Exposure time | Remarks and other effects reported |
|--------------------------------|----------|------------------------|-----------------------|---------|-----------|------------------|--|
| Lauryl dimethyl amine oxide | | | No data available | | | | |
| sodium hypochlorite | NOAEL | Developmental toxicity | 5 (CI) | Rat | Not known | | No evidence for reproductive toxicity |
| potassium hydroxide | | | No data available | | | | No evidence for reproductive toxicity |
| sodium hydroxide | | | No data available | | | | No evidence for developmental toxicity No evidence for reproductive 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 |
|-----------------------------|----------|-----------------------|---------|---------------------|-------------------------|---|
| Lauryl dimethyl amine oxide | | No data available | | | | |
| sodium hypochlorite | NOAEL | 50 | Rat | Method not given | 90 | |
| potassium hydroxide | | No data available | | | | |
| sodium hydroxide | | 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 |
|-----------------------------|----------|-----------------------|---------|--------|-------------------------|---|
| Lauryl dimethyl amine oxide | | No data available | | | | |
| sodium hypochlorite | | No data available | | | - | |
| potassium hydroxide | | No data available | | | | |
| sodium hydroxide | | 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 |
|-----------------------------|----------|-----------------------|---------|--------|-------------------------|--------------------------------------|
| Lauryl dimethyl amine oxide | | No data available | | | | |
| sodium hypochlorite | | No data available | | | - | |
| potassium hydroxide | | No data available | | | | |
| sodium hydroxide | | 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 |
|-----------------------|-------------------|----------|-----------------------|---------|---------|------------------|---|--------|
| Lauryl dimethyl amine | | | No data | | | | | |
| oxide | | | available | | | | | |
| sodium hypochlorite | | | No data | | no 6/11 | | | |

| | | available | | | |
|---------------------|--|----------------------|--|--|--|
| potassium hydroxide | | No data available | | | |
| sodium hydroxide | | No data available | | | |

STOT-single exposure

| Ingredient(s) | Affected organ(s) |
|-----------------------------|-------------------|
| Lauryl dimethyl amine oxide | No data available |
| sodium hypochlorite | No data available |
| potassium hydroxide | No data available |
| sodium hydroxide | No data available |

STOT-repeated exposure

| Ingredient(s) | Affected organ(s) |
|-----------------------------|-------------------|
| Lauryl dimethyl amine oxide | No data available |
| sodium hypochlorite | No data available |
| potassium hydroxide | No data available |
| sodium hydroxide | 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

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-----------------------------|----------|----------------------|--------------------|------------------|----------------------|
| Lauryl dimethyl amine oxide | | No data available | | | |
| sodium hypochlorite | LC 50 | 0.06 | Various species | Method not given | 96 |
| potassium hydroxide | LC 50 | 80 | Various species | Method not given | 24 |
| sodium hydroxide | LC 50 | 35 | Various species | Method not given | 96 |

Aquatic short-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-----------------------------|----------|----------------------|-------------------------|------------------|----------------------|
| Lauryl dimethyl amine oxide | | No data available | | | |
| sodium hypochlorite | EC 50 | 0.026 | Not specified | Method not given | 48 |
| potassium hydroxide | EC 50 | 30 - 1000 | Daphnia magna Straus | Method not given | - |
| sodium hydroxide | EC 50 | 40.4 | Ceriodaphnia sp. | Method not given | 48 |

Aquatic short-term toxicity - algae

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (h) |
|-----------------------------|----------|----------------------|-----------------------------------|------------------|----------------------|
| Lauryl dimethyl amine oxide | | No data available | | | |
| sodium hypochlorite | NOEC | 0.0021 | Not specified | Method not given | 168 |
| potassium hydroxide | | No data available | | | - |
| sodium hydroxide | EC 50 | 22 | Photobacteriu m phosphoreum | Method not given | 0.25 |

| Aquatic short-term toxicity - marine species | | | | | |
|--|----------|----------------------|---------|--------|-------------------------|
| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time (days) |
| Lauryl dimethyl amine oxide | | No data available | | | |
| sodium hypochlorite | | No data available | | | - |
| potassium hydroxide | | No data | | | - |

| | available | | |
|------------------|-----------|--|---|
| sodium hydroxide | No data | | - |
| | available | | |

Impact on sewage plants - toxicity to bacteria

| Ingredient(s) | Endpoint | Value (mg/l) | Inoculum | Method | Exposure time |
|-----------------------------|----------|----------------------|---------------------|------------------|------------------|
| Lauryl dimethyl amine oxide | | No data available | | | |
| sodium hypochlorite | | 0.375 | Activated sludge | Method not given | |
| potassium hydroxide | | No data available | | | |
| sodium hydroxide | | No data available | | | |

Aquatic long-term toxicity Aquatic long-term toxicity - fish

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|-----------------------------|----------|----------------------|-----------------------|---------------------|------------------|------------------|
| Lauryl dimethyl amine oxide | | No data available | | | | |
| sodium hypochlorite | NOEC | 0.04 | Menidia pelinsulae | Method not given | 96 hour(s) | |
| potassium hydroxide | | No data available | | | | |
| sodium hydroxide | | No data available | | | | |

Aquatic long-term toxicity - crustacea

| Ingredient(s) | Endpoint | Value (mg/l) | Species | Method | Exposure time | Effects observed |
|-----------------------------|----------|----------------------|---------|--------|------------------|------------------|
| Lauryl dimethyl amine oxide | | No data available | | | | |
| sodium hypochlorite | | No data available | | | | |
| potassium hydroxide | | No data available | | | | |
| sodium hydroxide | | 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 |
|-----------------------------|----------|---------------------------------|---------|--------|-------------------------|------------------|
| Lauryl dimethyl amine oxide | | No data available | | | | |
| sodium hypochlorite | | No data available | | | - | |
| potassium hydroxide | | No data available | | | - | |
| sodium hydroxide | | 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 |
|---------------------|----------|-----------------------------|---------|--------|-------------------------|------------------|
| sodium hypochlorite | | No data available | | | - | |
| potassium hydroxide | | No data available | | | - | |
| sodium hydroxide | | No data available | | | - | |

Terrestrial toxicity - plants, if available:

| Ingredient(s) | Endpoint | Value (mg/kg dw | Species | Method | Exposure time (days) | Effects observed |
|---------------------|----------|--------------------|---------|--------|-------------------------|------------------|
| | | soil) | | | | |
| sodium hypochlorite | | No data | | | - | |
| | | available | | | | |
| potassium hydroxide | | No data | | | - | |
| | | available | | | | |
| sodium hydroxide | | No data | | | - | |
| | | available | | | | |

Terrestrial toxicity - birds, if available:

| Ingredient(s) | Endpoint | Value | Species | Method | Exposure time (days) | Effects observed |
|---------------------|----------|----------------------|---------|--------|-------------------------|------------------|
| sodium hypochlorite | | No data available | | | - | |
| potassium hydroxide | | No data Page 8/ | 1 | | - | |

| | available | | | |
|------------------|-----------|--|---|--|
| sodium hydroxide | 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 hypochlorite | | No data available | | | - | |
| potassium hydroxide | | No data available | | | - | |
| sodium hydroxide | | 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 hypochlorite | | No data available | | | - | |
| potassium hydroxide | | No data available | | | - | |
| sodium hydroxide | | 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 hypochlorite | 115 day(s) | Indirect photo-oxidation | | |
| sodium hydroxide | 13 second(s) | 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 |
|-----------------------------|----------|----------------------|-------|--------|--------------------------------------|
| Lauryl dimethyl amine oxide | | | | | No data available |
| sodium hypochlorite | | | | | Not applicable (inorganic substance) |
| potassium hydroxide | | | | | Not applicable (inorganic substance) |
| sodium hydroxide | | | | | 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 |
|-----------------------------|-------------------|------------------|---|--------|
| Lauryl dimethyl amine oxide | No data available | | | |
| sodium hypochlorite | -3.42 | Method not given | No bioaccumulation expected | |
| potassium hydroxide | No data available | | Not relevant, does not bioaccumulate | |
| sodium hydroxide | No data available | | Not relevant, does not bioaccumulate | |

Bioconcentration factor (BCF)

| Ingredient(s) | Value | Species | Method | Evaluation | Remark |
|--------------------------------|-------------------|---------|--------|------------|--------|
| Lauryl dimethyl amine oxide | No data available | | | | |
| sodium hypochlorite | No data available | | | | |
| potassium hydroxide | No data available | | | | |
| sodium hydroxide | 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 |
|-----------------------------|--------------------------------------|---|--------|-----------------------|--|
| Lauryl dimethyl amine oxide | No data available | | | | |
| sodium hypochlorite | 1.12 | | | | High potential for mobility in soil |
| potassium hydroxide | No data available | Page 9/11 | | | Low potential for adsorption |

| | | | to soil |
|------------------|-------------------|--|----------------|
| sodium hydroxide | No data available | | Mobile in soil |

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: Suitable cleaning agents:

Dispose of observing national or local regulations. Water, if necessary with cleaning agent.

SECTION 14: Transport information



ADG, IMO/IMDG, ICAO/IATA

- 14.1 UN number: 1719
- 14.2 UN proper shipping name:
- Caustic alkali liquid, n.o.s. (potassium hydroxide, hypochlorite)
- 14.3 Transport hazard class(es):
 - Class: 8
 - Label(s): 8
- 14.4 Packing group: III
- 14.5 Environmental hazards:
- Environmentally hazardous: Yes
- 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:

Hazchem code: 2R

The product has been classified, labelled and packaged in accordance with the requirements of ADG 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

| Poison schedule | Classified as a Schedule 5 (S5) Poison using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP). |
|----------------------|--|
| Classification | Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals. |
| 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

| MSDS code: MS | 3100012 |
|---------------|---------|
|---------------|---------|

Version: 01.0

Revision: 2015-04-15

Full text of the H phrases mentioned in section 3:

H290 - May be corrosive to metals.

- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.

• H318 - Causes serious eye damage.

H335 - May cause respiratory irritation.

- 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.
- · EUH031 Contact with acids liberates toxic gas

Additional information:

Respirators: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

Work practices - solvents: Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.

Personal protective equipment guidelines: The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Health effects from exposure: It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Safety Data Sheet which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations and acronyms:

- ATE Acute Toxicity Estimate · LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- LD50 Lethal Dose, 50% / Median Lethal dose
- STOT-RE Specific target organ toxicity (repeated exposure)
 STOT-SE Specific target organ toxicity (single exposure)
- EC No. European Community Number

End of Safety Data Sheet