



Chemeco Pool Chlorine – Sodium Hypochlorite

Chemwatch: 4847-14
Version No: 2.1.1.1
Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 3

Issue Date: 27/06/2022
Print Date: 05/03/2023
S.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

| | |
|-------------------------------|---|
| Product name | Chemeco Pool Chlorine - Sodium Hypochlorite |
| Synonyms | Not Available |
| Proper shipping name | HYPOCHLORITE SOLUTION |
| Other means of identification | Not Available |

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

| | |
|--------------------------|--|
| Relevant identified uses | General purpose bleach and disinfectant. |
|--------------------------|--|

Details of the supplier of the safety data sheet

| | |
|-------------------------|-------------------------------|
| Registered company name | Chemeco (Aust) |
| Address | 17 Yale Drive Epping VIC 3076 |
| Telephone | +61 3 9408 8699 |
| Fax | +61 3 9408 8399 |
| Website | www.chemeco.com.au |
| Email | info@chemeco.com.au |

Emergency telephone number

| | |
|-----------------------------------|---------------|
| Association / Organisation | Not Available |
| Emergency telephone numbers | Not Available |
| Other emergency telephone numbers | Not Available |

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

| | |
|-------------------------------|---|
| Poisons Schedule | S5 |
| Classification ^[1] | Metal Corrosion Category 1, Skin Corrosion/Irritation Category 1B, Serious Eye Damage Category 1, Acute Aquatic Hazard Category 1 |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI |

Label elements

| | |
|--------------------|---|
| GHS label elements |   |
|--------------------|---|

| | |
|-------------|---------------|
| SIGNAL WORD | DANGER |
|-------------|---------------|

Hazard statement(s)

| | |
|--------|--|
| H290 | May be corrosive to metals. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |
| H400 | Very toxic to aquatic life. |
| AUH031 | Contact with acid liberates toxic gas |

Continued...

Chemeco Pool Chlorine - Sodium Hypochlorite

Precautionary statement(s) Prevention

| | |
|------|--|
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P234 | Keep only in original container. |
| P273 | Avoid release to the environment. |

Precautionary statement(s) Response

| | |
|----------------|--|
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P303+P361+P353 | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| 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 CENTER or doctor/physician. |

Precautionary statement(s) Storage

| | |
|------|------------------|
| P405 | Store locked up. |
|------|------------------|

Precautionary statement(s) Disposal

| | |
|------|---|
| P501 | Dispose of contents/container in accordance with local regulations. |
|------|---|

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name |
|-----------|-----------|--------------------------|
| 7681-52-9 | 10-15 | sodium hypochlorite |
| 1310-73-2 | <5 | sodium hydroxide |
| 7732-18-5 | >60 | water |
| | | available chlorine 12.5% |

SECTION 4 FIRST AID MEASURES

Description of first aid measures

| | |
|--------------|--|
| Eye Contact | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| Skin Contact | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. |
| Inhalation | <ul style="list-style-type: none"> If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor. Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs). As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested. Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered. <p>This must definitely be left to a doctor or person authorised by him/her. (ICSC13719)</p> |
| Ingestion | <ul style="list-style-type: none"> For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay. |

Indication of any immediate medical attention and special treatment needed

For acute or repeated exposures to hypochlorite solutions:

- Release of small amounts of hypochlorous acid and acid gases from the stomach following ingestion, is usually too low to cause damage but may be irritating to mucous membranes. Buffering with antacid may be helpful if discomfort is evident.
- Evaluate as potential caustic exposure.
- Decontaminate skin and eyes with copious saline irrigation. Check exposed eyes for corneal abrasions with fluorescein staining.

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- Emesis or lavage and catharsis may be indicated for mild caustic exposure.
- Chlorine exposures require evaluation of acid/base and respiratory status.
- Inhalation of vapours or mists may result in pulmonary oedema.

ELLENHORN and BARCELOUX: Medical Toxicology.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).

Special hazards arising from the substrate or mixture

| | |
|----------------------|-------------|
| Fire Incompatibility | None known. |
|----------------------|-------------|

Advice for firefighters

| | |
|---|---|
| Fire Fighting | <ul style="list-style-type: none"> ▸ Alert Fire Brigade and tell them location and nature of hazard. ▸ Wear full body protective clothing with breathing apparatus. ▸ Prevent, by any means available, spillage from entering drains or water course. ▸ Use fire fighting procedures suitable for surrounding area. |
| Fire/Explosion Hazard | <ul style="list-style-type: none"> ▸ Non combustible. ▸ Not considered to be a significant fire risk. ▸ Expansion or decomposition on heating may lead to violent rupture of containers. ▸ Decomposes on heating and may produce toxic/ irritating fumes. |
| Decomposes on heating and produces toxic fumes of:., hydrogen chlorideMay emit corrosive fumes. | |

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

| | |
|--------------|--|
| Minor Spills | <ul style="list-style-type: none"> ▸ Clean up all spills immediately. ▸ Avoid breathing vapours and contact with skin and eyes. ▸ Control personal contact with the substance, by using protective equipment. ▸ Contain and absorb spill with sand, earth, inert material or vermiculite. |
| Major Spills | <ul style="list-style-type: none"> ▸ Clear area of personnel and move upwind. ▸ Alert Fire Brigade and tell them location and nature of hazard. ▸ Wear full body protective clothing with breathing apparatus. ▸ Prevent, by any means available, spillage from entering drains or water course. |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

| | |
|-------------------|--|
| Safe handling | <ul style="list-style-type: none"> ▸ DO NOT allow clothing wet with material to stay in contact with skin ▸ Limit all unnecessary personal contact. ▸ Wear protective clothing when risk of exposure occurs. ▸ Use in a well-ventilated area. ▸ Avoid contact with incompatible materials. |
| Other information | <ul style="list-style-type: none"> ▸ Store in original containers. ▸ Keep containers securely sealed. ▸ Store in a cool, dry, well-ventilated area. ▸ Store away from incompatible materials and foodstuff containers. ▸ Protect from light. |

Conditions for safe storage, including any incompatibilities

| | |
|-------------------------|--|
| Suitable container | <ul style="list-style-type: none"> ▸ Polyethylene or polypropylene container. ▸ Packing as recommended by manufacturer. ▸ Check all containers are clearly labelled and free from leaks. |
| Storage incompatibility | <p>Contact with acids produces toxic fumes of chlorine</p> <ul style="list-style-type: none"> ▸ Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. ▸ Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous |

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

Continued...

Chemeco Sodium Hypochlorite

INGREDIENT DATA


| Source | Ingredient | Material name | TWA | STEL | Peak | Notes |
|------------------------------|------------------|------------------|---------------|---------------|---------|---------------|
| Australia Exposure Standards | sodium hydroxide | Sodium hydroxide | Not Available | Not Available | 2 mg/m3 | Not Available |

EMERGENCY LIMITS

| Ingredient | Material name | TEEL-1 | TEEL-2 | TEEL-3 |
|---------------------|----------------------------------|---------------|---------------|---------------|
| sodium hypochlorite | Sodium hypochlorite pentahydrate | 4.6 mg/m3 | 51 mg/m3 | 290 mg/m3 |
| sodium hypochlorite | Sodium hypochlorite | 2 mg/m3 | 20 mg/m3 | 630 mg/m3 |
| sodium hydroxide | Sodium hydroxide | Not Available | Not Available | Not Available |

| Ingredient | Original IDLH | Revised IDLH |
|---------------------|---------------|---------------|
| sodium hypochlorite | Not Available | Not Available |
| sodium hydroxide | 250 mg/m3 | 10 mg/m3 |
| water | Not Available | Not Available |

Exposure controls

| | |
|----------------------------------|---|
| Appropriate engineering controls | Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. |
| Personal protection |  |
| Eye and face protection | <ul style="list-style-type: none"> Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. |
| Skin protection | See Hand protection below |
| Hands/feet protection | <ul style="list-style-type: none"> Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots. <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Suitability and durability of glove type is dependent on usage.</p> |
| Body protection | See Other protection below |
| Other protection | <ul style="list-style-type: none"> Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit. |
| Thermal hazards | Not Available |

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

NV Chemicals Sodium Hypochlorite

| Material | CPI |
|----------------|-----|
| NEOPRENE | A |
| NATURAL RUBBER | C |

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Respiratory protection

Type B-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|-------------------------|
| up to 10 x ES | B-AUS P3 | - | B-PAPR-AUS / Class 1 P3 |
| up to 50 x ES | - | B-AUS / Class 1 P3 | - |
| up to 100 x ES | - | B-2 P3 | B-PAPR-2 P3 ^ |

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Chemeco Pool Chlorine - Sodium Hypochlorite

Information on basic physical and chemical properties

| | | | |
|---|---|--|----------------|
| Appearance | Pale yellow-green liquid with chlorine odour; mixes with water. Oxidiser. | | |
| Physical state | Liquid | Relative density (Water = 1) | 1.18-1.20 |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Available |
| pH (as supplied) | >11.5 | Decomposition temperature | Not Available |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | Not Available |
| Initial boiling point and boiling range (°C) | Not Available | Molecular weight (g/mol) | Not Applicable |
| Flash point (°C) | Not Available | Taste | Not Available |
| Evaporation rate | Not Available | Explosive properties | Not Available |
| Flammability | Not Available | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | Not Applicable | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | Not Applicable | Volatile Component (%vol) | Not Available |
| Vapour pressure (kPa) | Not Available | Gas group | Not Available |
| Solubility in water (g/L) | Miscible | pH as a solution (1%) | Not Available |
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available |

SECTION 10 STABILITY AND REACTIVITY

| | |
|---|--|
| Reactivity | See section 7 |
| Chemical stability | <ul style="list-style-type: none"> Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur. |
| Possibility of hazardous reactions | See section 7 |
| Conditions to avoid | See section 7 |
| Incompatible materials | See section 7 |
| Hazardous decomposition products | See section 5 |

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

| | |
|---------------------|---|
| Inhaled | There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Chlorine vapour is extremely irritating to the airways and lungs, causing coughing, choking, breathing difficulty, chest pain, headache, vomiting, fluid accumulation in the lungs, chest infection and loss of consciousness. Effects may be delayed. Long term exposure (at workplace) may lead to corrosion of the teeth, irritate the linings of the nose and may increase the likelihood of developing tuberculosis. Recent studies have not confirmed these findings. |
| Ingestion | The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. Ingestion of hypochlorites may cause burning in the mouth and throat, abdominal cramps, nausea, vomiting, diarrhoea, pain and inflammation of the mouth and stomach, fall of blood pressure, shock, confusion, and delirium. Severe poisonings may lead to convulsion, coma and death. Ingestion irritates the mouth, throat, and stomach. The hypochlorous acid liberated in the stomach can cause wall perforation, toxemia, haemorrhage and death. |
| Skin Contact | The material can produce chemical burns following direct contact with the skin. Skin contact will result in rapid drying, bleaching, leading to chemical burns on prolonged contact. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. |
| Eye | The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. |
| Chronic | Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. There is limited evidence that, skin contact with this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Reduced respiratory capacity may result from chronic low level exposure to chlorine gas. Chronic poisoning may result in coughing, severe chest pains, sore throat and haemoptysis (bloody sputum). Moderate to severe exposures over 3 years produced decreased lung capacity in a number of workers. Delayed effects can include shortness of breath, violent headaches, pulmonary oedema and pneumonia. |

| | | |
|---|---|---------------------------------|
| NV Chemicals Sodium Hypochlorite | TOXICITY | IRRITATION |
| | Not Available | Not Available |
| sodium hypochlorite | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >10000 mg/kg ^[1] | Eye (rabbit): 10 mg - moderate |
| | Oral (rat) LD50: >237 mg/kg ^[1] | Eye (rabbit): 100 mg - moderate |

Chemeco Pool Chlorine - Sodium Hypochlorite

| | | |
|------------------|--|--------------------------------------|
| | | Skin (rabbit): 500 mg/24h-moderate |
| sodium hydroxide | TOXICITY | IRRITATION |
| | Oral (rabbit) LD50: 325 mg/kg ^[1] | Eye (rabbit): 0.05 mg/24h SEVERE |
| | | Eye (rabbit): 1 mg/24h SEVERE |
| | | Eye (rabbit): 1 mg/30s rinsed-SEVERE |
| water | TOXICITY | IRRITATION |
| | Oral (rat) LD50: >90000 mg/kg ^[2] | Not Available |

Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

| | |
|--|--|
| SODIUM HYPOCHLORITE | Hypochlorite salts are classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing. The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Hypochlorite salts are extremely corrosive and can cause severe damage to the eyes and skin. A number of skin cancers have been observed in mice, when applied to their skin. as sodium hypochlorite pentahydrate |
| SODIUM HYDROXIDE | The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration. |
| WATER | No significant acute toxicological data identified in literature search. |
| SODIUM HYPOCHLORITE & SODIUM HYDROXIDE | Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. |

| | | | |
|-----------------------------------|---|--------------------------|---|
| Acute Toxicity | ☐ | Carcinogenicity | ☐ |
| Skin Irritation/Corrosion | ✓ | Reproductivity | ☐ |
| Serious Eye Damage/Irritation | ✓ | STOT - Single Exposure | ☐ |
| Respiratory or Skin sensitisation | ☐ | STOT - Repeated Exposure | ☐ |
| Mutagenicity | ☐ | Aspiration Hazard | ☐ |

Legend: ✗ – Data available but does not fill the criteria for classification
 ✓ – Data required to make classification available
 ☐ – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

| Ingredient | Endpoint | Test Duration (hr) | Species | Value | Source |
|---------------------|----------|--------------------|-------------------------------|----------------|--------|
| sodium hypochlorite | EC50 | 0.08 | Crustacea | 0.002mg/L | 4 |
| sodium hypochlorite | LC50 | 96 | Fish | 0.032mg/L | 4 |
| sodium hypochlorite | EC50 | 48 | Crustacea | 0.026mg/L | 2 |
| sodium hypochlorite | EC50 | 72 | Algae or other aquatic plants | 0.0183mg/L | 2 |
| sodium hypochlorite | NOEC | 72 | Algae or other aquatic plants | 0.0054mg/L | 2 |
| sodium hydroxide | EC50 | 384 | Crustacea | 27901.643mg/L | 3 |
| sodium hydroxide | EC50 | 96 | Algae or other aquatic plants | 1034.10043mg/L | 3 |
| sodium hydroxide | LC50 | 96 | Fish | 4.16158mg/L | 3 |
| sodium hydroxide | NOEC | 96 | Fish | 56mg/L | 4 |
| sodium hydroxide | EC50 | 48 | Crustacea | 40.4mg/L | 2 |
| water | EC50 | 384 | Crustacea | 199.179mg/L | 3 |
| water | EC50 | 96 | Algae or other aquatic plants | 8768.874mg/L | 3 |
| water | LC50 | 96 | Fish | 897.520mg/L | 3 |

Legend:

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

DO NOT discharge into sewer or waterways.

Persistence and degradability

Continued...

Chemeco Pool Chlorine - Sodium Hypochlorite

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|------------------|-------------------------|------------------|
| sodium hydroxide | LOW | LOW |
| water | LOW | LOW |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|------------------|------------------------|
| sodium hydroxide | LOW (LogKOW = -3.8796) |
| water | LOW (LogKOW = -1.38) |

Mobility in soil

| Ingredient | Mobility |
|------------------|------------------|
| sodium hydroxide | LOW (KOC = 14.3) |
| water | LOW (KOC = 14.3) |



SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

| Product / Packaging disposal | <ul style="list-style-type: none"> Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill. |
|------------------------------|--|
|------------------------------|--|

SECTION 14 TRANSPORT INFORMATION

Labels Required

| | |
|------------------|---|
| |  |
| Marine Pollutant |  |
| HAZCHEM | 2X |

Land transport (ADG)

| | | | | | |
|------------------------------|--|--------------------|-----|------------------|----------------|
| UN number | 1791 | | | | |
| UN proper shipping name | HYPOCHLORITE SOLUTION | | | | |
| Transport hazard class(es) | <table> <tr> <td>Class</td><td>8</td></tr> <tr> <td>Subrisk</td><td>Not Applicable</td></tr> </table> | Class | 8 | Subrisk | Not Applicable |
| Class | 8 | | | | |
| Subrisk | Not Applicable | | | | |
| Packing group | III | | | | |
| Environmental hazard | Not Applicable | | | | |
| Special precautions for user | <table> <tr> <td>Special provisions</td><td>223</td></tr> <tr> <td>Limited quantity</td><td>5 L</td></tr> </table> | Special provisions | 223 | Limited quantity | 5 L |
| Special provisions | 223 | | | | |
| Limited quantity | 5 L | | | | |

Air transport (ICAO-IATA / DGR)

| | | | | | | | | | | | |
|--|--|--------------------|--------|---------------------------------|----------------|-------------------------------|------|--|-----|--|-----|
| UN number | 1791 | | | | | | | | | | |
| UN proper shipping name | Hypochlorite solution | | | | | | | | | | |
| Transport hazard class(es) | <table> <tr> <td>ICAO/IATA Class</td><td>8</td></tr> <tr> <td>ICAO / IATA Subrisk</td><td>Not Applicable</td></tr> <tr> <td>ERG Code</td><td>8L</td></tr> </table> | ICAO/IATA Class | 8 | ICAO / IATA Subrisk | Not Applicable | ERG Code | 8L | | | | |
| ICAO/IATA Class | 8 | | | | | | | | | | |
| ICAO / IATA Subrisk | Not Applicable | | | | | | | | | | |
| ERG Code | 8L | | | | | | | | | | |
| Packing group | III | | | | | | | | | | |
| Environmental hazard | Not Applicable | | | | | | | | | | |
| Special precautions for user | <table> <tr> <td>Special provisions</td><td>A3A803</td></tr> <tr> <td>Cargo Only Packing Instructions</td><td>856</td></tr> <tr> <td>Cargo Only Maximum Qty / Pack</td><td>60 L</td></tr> <tr> <td>Passenger and Cargo Packing Instructions</td><td>852</td></tr> <tr> <td>Passenger and Cargo Maximum Qty / Pack</td><td>5 L</td></tr> </table> | Special provisions | A3A803 | Cargo Only Packing Instructions | 856 | Cargo Only Maximum Qty / Pack | 60 L | Passenger and Cargo Packing Instructions | 852 | Passenger and Cargo Maximum Qty / Pack | 5 L |
| Special provisions | A3A803 | | | | | | | | | | |
| Cargo Only Packing Instructions | 856 | | | | | | | | | | |
| Cargo Only Maximum Qty / Pack | 60 L | | | | | | | | | | |
| Passenger and Cargo Packing Instructions | 852 | | | | | | | | | | |
| Passenger and Cargo Maximum Qty / Pack | 5 L | | | | | | | | | | |

Chemeco Pool Chlorine - Sodium Hypochlorite

| | |
|---|------|
| Passenger and Cargo Limited Quantity Packing Instructions | Y841 |
| Passenger and Cargo Limited Maximum Qty / Pack | 1 L |

Sea transport (IMDG-Code / GGVSee)

| | |
|------------------------------|-----------------------------|
| UN number | 1791 |
| UN proper shipping name | HYPOCHLORITE SOLUTION |
| Transport hazard class(es) | IMDG Class 8 |
| | IMDG Subrisk Not Applicable |
| Packing group | III |
| Environmental hazard | Marine Pollutant |
| Special precautions for user | EMS Number F-A, S-B |
| | Special provisions 223 |
| | Limited Quantities 5 L |

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

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

SODIUM HYPOCHLORITE(7681-52-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Substances Information System - Consolidated
Lists Australia Inventory of Chemical Substances (AICS)International Agency for Research on Cancer (IARC) - Agents Classified by the
IARC Monographs

SODIUM HYDROXIDE(1310-73-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards
Australia Hazardous Substances Information System - Consolidated Lists

Australia Inventory of Chemical Substances (AICS)

WATER(7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY

LISTS Australia Inventory of Chemical Substances (AICS)

| National Inventory | Status |
|----------------------------------|--|
| Australia - AICS | Y |
| Canada - DSL | Y |
| Canada - NDSL | N (water; sodium hypochlorite; sodium hydroxide) |
| China - IECSC | Y |
| Europe - EINEC / ELINCS / NLP | Y |
| Japan - ENCS | N (water) |
| Korea - KECI | Y |
| New Zealand - NZIoC | Y |
| Philippines - PICCS | Y |
| USA - TSCA | Y |
| Legend: | Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets) |

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

| Name | CAS No |
|---------------------|-----------------------|
| sodium hypochlorite | 7681-52-9, 10022-70-5 |
| sodium hydroxide | 1310-73-2, 12200-64-5 |

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:
www.chemwatch.net

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit

Continued...

Chemeco Pool Chlorine - Sodium Hypochlorite

IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit
IDLH: Immediately Dangerous to Life or Health Concentrations
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index