Coogee Chemicals Sodium Hypochlorite Coogee Chemicals Pty Ltd

Chemwatch: 63-4453 Version No: 7.1

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Chemwatch Hazard Alert Code: 3

Issue Date: **17/09/2021**Print Date: **18/10/2022**L.GHS.AUS.EN.E

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

| Product Identifier | | | | |
|-------------------------------|--------------------------------------|--|--|--|
| Product name | Coogee Chemicals Sodium Hypochlorite | | | |
| Chemical Name | Not Applicable | | | |
| Synonyms | Product code: 3600 | | | |
| Proper shipping name | HYPOCHLORITE SOLUTION | | | |
| Chemical formula | Not Applicable | | | |
| Other means of identification | Not Available | | | |
| | | | | |

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

Relevant identified uses Bleaching Agent, Disinfectant, Oxidising agent.

Details of the manufacturer or supplier of the safety data sheet

| Registered company name | Coogee Chemicals Pty Ltd | | |
|-------------------------|---|--|--|
| Address | Cnr of Patterson and Kwinana Beach Roads Kwinana WA Australia | | |
| Telephone | +61 8 9439 8200 | | |
| Fax | -61 8 9439 8300 | | |
| Website | www.coogee.com.au | | |
| Email | enquiry@coogee.com.au | | |

Emergency telephone number

| Association / Organisation | Coogee Chemicals |
|-----------------------------------|------------------|
| Emergency telephone numbers | 1800 800 655 |
| 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] | Corrosive to Metals Category 1, Skin Corrosion/Irritation Category 1B, Serious Eye Damage/Eye Irritation Category 1, Hazardous to the Aquatic Environment Acute Hazard Category 1 |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |

Label elements

Hazard pictogram(s)





Signal word Dange

Hazard statement(s)

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

Supplementary statement(s)

Not Applicable

Chemwatch: **63-4453** Page **2** of **9**

Version No: 7.1

Coogee Chemicals Sodium Hypochlorite

Issue Date: **17/09/2021**Print Date: **18/10/2022**

Precautionary statement(s) Prevention

| P260 | Do not breathe mist/vapours/spray. |
|------|---|
| P264 | Wash all exposed external body areas thoroughly after handling. |

Precautionary statement(s) Response

| 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]. |

Precautionary statement(s) Storage

P405 Store locked up.

Precautionary statement(s) Disposal

P501

Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name | | |
|---|-----------|---------------------|--|--|
| 7681-52-9 | 10-30 | sodium hypochlorite | | |
| 1310-73-2 | <1 | sodium hydroxide | | |
| 7732-18-5 | >60 water | | | |
| Legend: 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available | | | | |

SECTION 4 First aid measures

| Description | ۸f | firet | hic | magelirae |
|-------------|----|-------|-----|-----------|
| Describtion | OI | IIISt | aıu | measures |

Eve Contact

If this product comes in contact with the eyes:

- 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

Inhalation

- Immediately flush body and clothes with large amounts of water, using safety shower if available.
- Quickly remove all contaminated clothing, including footwear.
- Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.
- ► Transport to hospital, or doctor.
- 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.

This must definitely be left to a doctor or person authorised by him/her.

(ICSC13719)

- ► 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:

Ingestion

- 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.
- ▶ 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.

Chemwatch: 63-4453 Page 3 of 9

Version No: 7.1

Coogee Chemicals Sodium Hypochlorite

Issue Date: **17/09/2021**Print Date: **18/10/2022**

Excellent warning properties force rapid escape of personnel from chlorine vapour thus most inhalations are mild to moderate. If escape is not possible, exposure to high concentrations for a very short time can result in dyspnea, haemophysis and cyanosis with later complications being tracheobroncho-pneumonitis and pulmonary oedema. Oxygen, intermittent positive pressure breathing apparatus and aerosolysed bronchodilators are of therapeutic value where chlorine inhalation has been light to moderate. Severe inhalation should result in hospitalisation and treatment for a respiratory emergency.

Any chlorine inhalation in an individual with compromised pulmonary function (COPD) should be regarded as a severe inhalation and a respiratory emergency. [CCINFO, Dow 1988] Effects from exposure to chlorine gas include pulmonary oedema which may be delayed. Observation in hospital for 48 hours is recommended

Diagnosed asthmatics and those people suffering from certain types of chronic bronchitis should receive medical approval before being employed in occupations involving chlorine exposure.

If burn is present, treat as any thermal burn, after decontamination.

for corrosives:

BASIC TREATMENT

- ▶ Establish a patent airway with suction where necessary.
- Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- Administer oxygen by non-rebreather mask at 10 to 15 l/min.
- Monitor and treat, where necessary, for pulmonary oedema.
- Monitor and treat, where necessary, for shock.
- Anticipate seizures.
- ▶ Where eyes have been exposed, flush immediately with water and continue to irrigate with normal saline during transport to hospital.
- DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.
- Skin burns should be covered with dry, sterile bandages, following decontamination.
- ▶ DO NOT attempt neutralisation as exothermic reaction may occur.

ADVANCED TREATMENT

- ▶ Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- Positive-pressure ventilation using a bag-valve mask might be of use.
- Monitor and treat, where necessary, for arrhythmias.
- ▶ Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- Drug therapy should be considered for pulmonary oedema.
- Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- Treat seizures with diazepam.
- ▶ Proparacaine hydrochloride should be used to assist eye irrigation.

EMERGENCY DEPARTMENT

- Laboratory analysis of complete blood count, serum electrolytes, BUN, creatinine, glucose, urinalysis, baseline for serum aminotransferases (ALT and AST), calcium, phosphorus and magnesium, may assist in establishing a treatment regime.
- Positive end-expiratory pressure (PEEP)-assisted ventilation may be required for acute parenchymal injury or adult respiratory distress syndrome.
- ▶ Consider endoscopy to evaluate oral injury.
- Consult a toxicologist as necessary.

BRONSTEIN, A.C. and CURRANCE, P.L. EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

SECTION 5 Firefighting measures

Extinguishing media

- Water spray or fog.
- ► Foam.

Special hazards arising from the substrate or mixture

Fire Incompatibility None known.

Advice for firefighters

| Advice for firefighters | |
|-------------------------|---|
| Fire Fighting | Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. |
| Fire/Explosion Hazard | May evolve toxic gases (chlorine) when heated to decomposition. Non combustible. Not considered a significant fire risk, however containers may burn. Decomposition may produce toxic fumes of: hydrogen chloride May emit corrosive fumes. |
| HAZCHEM | 2X |

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 |
|--------------|
|--------------|

- Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material.
- Check regularly for spills and leaks.
 - Clean up all spills immediately.
 - Avoid breathing vapours and contact with skin and eyes.

Chemwatch: **63-4453** Page **4** of **9**

Version No: 7.1

Coogee Chemicals Sodium Hypochlorite

Issue Date: **17/09/2021**Print Date: **18/10/2022**

Major Spills

- Clear area of personnel and move upwind.
 - Alert Fire Brigade and tell them location and nature of hazard.

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling

- Avoid all personal contact, including inhalation.
- ▶ Wear protective clothing when risk of exposure occurs.

Other information

Store in original containers.Keep containers securely sealed.

Conditions for safe storage, including any incompatibilities

Suitable container

▶ Lined metal can, lined metal pail/ can.

Plastic pail.

For low viscosity materials

- Drums and jerricans must be of the non-removable head type.
- Where a can is to be used as an inner package, the can must have a screwed enclosure.

Storage incompatibility

Contact with acids, organics, reducing agents (eg. amines), metallic powders and heat sources produces toxic fumes of chlorine. May be decomposed by hot water releasing chlorine fumes.

Contact with acids produces toxic fumes

Contact with acids produces toxic fumes of chlorine

▶ 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)

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 | TEEL-1 | TEEL-2 | TEEL-3 |
|---------------------|---------------|---------------|---------------|
| sodium hypochlorite | 13 mg/m3 | 140 mg/m3 | 290 mg/m3 |
| sodium hypochlorite | 2 mg/m3 | 290 mg/m3 | 1,800 mg/m3 |
| sodium hydroxide | Not Available | Not Available | Not Available |

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

MATERIAL DATA

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. |
|----------------------------------|--|
| Personal protection | |
| Eye and face protection | Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes. |
| Skin protection | See Hand protection below |
| Hands/feet protection | 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. |
| Body protection | See Other protection below |
| Other protection | Overalls. PVC Apron. |

Respiratory protection

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

- · Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or

Chemwatch: 63-4453 Page 5 of 9

Version No: 7.1

Coogee Chemicals Sodium Hypochlorite

Issue Date: **17/09/2021**Print Date: **18/10/2022**

vendor recommended.

- · Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
- Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
- \cdot Use approved positive flow mask if significant quantities of dust becomes airborne.
- \cdot Try to avoid creating dust conditions.

76b-p()

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

| Appearance | Clear yellow coloured alkaline liquid with chlorine odour; miscible with water. | | |
|--|---|---|----------------|
| Physical state | Liquid | Relative density (Water = 1) | 1.17-1.22 |
| 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 (°C) | Not Available |
| Melting point / freezing point (°C) | -25 | Viscosity (cSt) | Not Available |
| Initial boiling point and boiling range (°C) | >100 | Molecular weight (g/mol) | Not Applicable |
| Flash point (°C) | Not Applicable | Taste | Not Available |
| Evaporation rate | Not Available | Explosive properties | Not Available |
| Flammability | Not Applicable | 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) | 80-95 |
| Vapour pressure (kPa) | 2.3 | Gas group | Not Available |
| Solubility in water | Miscible | pH as a solution (Not Available%) | Not Available |
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available |

SECTION 10 Stability and reactivity

| Reactivity | See section 7 |
|------------------------------------|--|
| Chemical stability | Unstable in the presence of incompatible materials. Product is considered stable. |
| 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 | toxical | ogical | effects |
|-------------|----|---------|--------|---------|

| Information on toxicological ef | fects | | | |
|---------------------------------|--|--|--|--|
| Inhaled | Chlorine vapour is extremely irritating to the upper respiratory tract and lu Symptoms of exposure to chlorine include coughing, choking, breathing of may cause lung congestion, bronchitis and loss of consciousness. | • | | |
| Ingestion | The material can produce chemical burns within the oral cavity and gastr Accidental ingestion of the material may be damaging to the health of the | | | |
| Skin Contact | · · | resulting in permanent injury. 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 | | |
| Eye | The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation. | | | |
| 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. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. 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). | | | |
| | | | | |
| Coogee Chemicals Sodium | TOXICITY | IRRITATION | | |
| Hypochlorite | Not Available | Not Available | | |

Page 6 of 9

Coogee Chemicals Sodium Hypochlorite

Issue Date: 17/09/2021 Print Date: 18/10/2022

| | TOXICITY | IRRITATION | |
|---|--|--|--|
| | Dermal (rabbit) LD50: >10000 mg/kg ^[1] | Eye (rabbit): 10 m | g - moderate |
| sodium hypochlorite | Inhalation(Rat) LC50; >2.625 mg/l4h ^[1] | Eye (rabbit): 100 r | mg - moderate |
| | Oral (Mouse) LD50; 5800 mg/kg ^[2] | Skin (rabbit): 500 mg/24h-moderate | |
| | TOXICITY | IRRITATION | |
| | Dermal (rabbit) LD50: 1350 mg/kg ^[2] | Eye (rabbit): 0.05 | mg/24h SEVERE |
| | Oral (Rabbit) LD50; 325 mg/kg ^[1] | Eye (rabbit):1 mg/ | 24h SEVERE |
| sodium hydroxide | | Eye (rabbit):1 mg/ | 30s rinsed-SEVERE |
| | | Eye: adverse effec | ct observed (irritating) ^[1] |
| | | Skin (rabbit): 500 | mg/24h SEVERE |
| | | Skin: adverse effe | ct observed (corrosive) ^[1] |
| | TOXICITY | IRRITATION | |
| water | Oral (Rat) LD50; >90000 mg/kg ^[2] | Not Available | |
| | | | |
| Legend: | Nalue obtained from Europe ECHA Registered Substance specified data extracted from RTECS - Register of Toxic | | ed from manufacturer's SDS. Unless otherwise |
| Legend: | | | ed from manufacturer's SDS. Unless otherwise |
| Legend: SODIUM HYPOCHLORITE | | c Effect of chemical Substances OT classifiable as to its carcinogenicity and in animal testing. Ing to inflammation. Repeated or proloroute are from studies performed with | ty to humans. nged exposure to irritants may produce sodium hypochlorite or chlorine gas. In biological |
| - | as sodium hypochlorite pentahydrate Hypochlorite salts are classified by IARC as Group 3: N Evidence of carcinogenicity may be inadequate or limite The material may produce moderate eye irritation leadir conjunctivitis. Most of the data for toxicity of hypochlorites by the oral systems, characterised by pH values in the range of 6-8 | c Effect of chemical Substances OT classifiable as to its carcinogenicitied in animal testing, ng to inflammation. Repeated or proloroute are from studies performed with 3, the most abundant active chemical susing pronounced inflammation. Repolonged or repeated exposure, and mass (erythema) thickening of the epiderm | ty to humans. Inged exposure to irritants may produce I sodium hypochlorite or chlorine gas. In biological species is (hypochlorous acid) HOCI, in equilibrium eated or prolonged exposure to irritants may ay produce a contact dermatitis (nonallergic). This nis. |
| SODIUM HYPOCHLORITE | as sodium hypochlorite pentahydrate Hypochlorite salts are classified by IARC as Group 3: N Evidence of carcinogenicity may be inadequate or limite The material may produce moderate eye irritation leadir conjunctivitis. Most of the data for toxicity of hypochlorites by the oral systems, characterised by pH values in the range of 6-8 with hyochlorite anion (CIO-). The material may produce severe irritation to the eye ca produce conjunctivitis. The material may produce severe skin irritation after pro- | C Effect of chemical Substances OT classifiable as to its carcinogenicited in animal testing. Ing to inflammation. Repeated or prologenicited are from studies performed with a street and the street are from studies performed with a street and the street are from studies performed with a street are from studies performed with a street are from studies performed with a street are from studies and the street are from street and the street are from street are | ty to humans. Inged exposure to irritants may produce I sodium hypochlorite or chlorine gas. In biological species is (hypochlorous acid) HOCI, in equilibrium eated or prolonged exposure to irritants may ay produce a contact dermatitis (nonallergic). This nis. |
| SODIUM HYPOCHLORITE SODIUM HYDROXIDE | as sodium hypochlorite pentahydrate Hypochlorite salts are classified by IARC as Group 3: N Evidence of carcinogenicity may be inadequate or limite The material may produce moderate eye irritation leadir conjunctivitis. Most of the data for toxicity of hypochlorites by the oral systems, characterised by pH values in the range of 6-8 with hyochlorite anion (CIO-). The material may produce severe irritation to the eye ca produce conjunctivitis. The material may produce severe skin irritation after pro form of dermatitis is often characterised by skin redness Histologically there may be intercellular oedema of the se | C Effect of chemical Substances OT classifiable as to its carcinogenicity of in animal testing. Ing to inflammation. Repeated or prologenicity of the substance of the substan | ty to humans. Inged exposure to irritants may produce I sodium hypochlorite or chlorine gas. In biological species is (hypochlorous acid) HOCl, in equilibrium eated or prolonged exposure to irritants may ay produce a contact dermatitis (nonallergic). This his. Ilular oedema of the epidermis. |
| SODIUM HYPOCHLORITE SODIUM HYDROXIDE WATER SODIUM HYPOCHLORITE & SODIUM HYDROXIDE | as sodium hypochlorite pentahydrate Hypochlorite salts are classified by IARC as Group 3: N Evidence of carcinogenicity may be inadequate or limite The material may produce moderate eye irritation leadir conjunctivitis. Most of the data for toxicity of hypochlorites by the oral systems, characterised by pH values in the range of 6-8 with hyochlorite anion (CIO-). The material may produce severe irritation to the eye ca produce conjunctivitis. The material may produce severe skin irritation after pro form of dermatitis is often characterised by skin redness Histologically there may be intercellular oedema of the s No significant acute toxicological data identified in litera Asthma-like symptoms may continue for months or ever known as reactive airways dysfunction syndrome (RAD) | C Effect of chemical Substances OT classifiable as to its carcinogenicitied in animal testing. Ing to inflammation. Repeated or prolotoroute are from studies performed with a standard active chemical standard pronounced inflammation. Repeated exposure, and makes (erythema) thickening of the epiderm spongy layer (spongiosis) and intracel ture search. In years after exposure to the material S) which can occur after exposure to the | ty to humans. Inged exposure to irritants may produce I sodium hypochlorite or chlorine gas. In biological species is (hypochlorous acid) HOCl, in equilibrium eated or prolonged exposure to irritants may ay produce a contact dermatitis (nonallergic). This his. Ilular oedema of the epidermis. ends. This may be due to a non-allergic condition high levels of highly irritating compound. |
| SODIUM HYPOCHLORITE SODIUM HYDROXIDE WATER SODIUM HYPOCHLORITE & SODIUM HYDROXIDE Acute Toxicity | as sodium hypochlorite pentahydrate Hypochlorite salts are classified by IARC as Group 3: N Evidence of carcinogenicity may be inadequate or limite The material may produce moderate eye irritation leadir conjunctivitis. Most of the data for toxicity of hypochlorites by the oral systems, characterised by pH values in the range of 6-8 with hyochlorite anion (CIO-). The material may produce severe irritation to the eye ca produce conjunctivitis. The material may produce severe skin irritation after pro form of dermatitis is often characterised by skin redness Histologically there may be intercellular oedema of the s No significant acute toxicological data identified in litera Asthma-like symptoms may continue for months or ever known as reactive airways dysfunction syndrome (RAD) | CEffect of chemical Substances OT classifiable as to its carcinogenicited in animal testing. Ing to inflammation. Repeated or prologous are from studies performed with a standard active chemical standard pronounced inflammation. Repeated or repeated exposure, and makes (erythema) thickening of the epiderm spongy layer (spongiosis) and intracel ture search. In years after exposure to the material S) which can occur after exposure to the Carcinogenicity | ty to humans. Inged exposure to irritants may produce I sodium hypochlorite or chlorine gas. In biological species is (hypochlorous acid) HOCl, in equilibrium eated or prolonged exposure to irritants may ay produce a contact dermatitis (nonallergic). This his. Itular oedema of the epidermis. ends. This may be due to a non-allergic condition high levels of highly irritating compound. |
| SODIUM HYPOCHLORITE SODIUM HYDROXIDE WATER SODIUM HYPOCHLORITE & SODIUM HYPOCHLORITE & SODIUM HYDROXIDE Acute Toxicity Skin Irritation/Corrosion | as sodium hypochlorite pentahydrate Hypochlorite salts are classified by IARC as Group 3: N Evidence of carcinogenicity may be inadequate or limite The material may produce moderate eye irritation leadir conjunctivitis. Most of the data for toxicity of hypochlorites by the oral systems, characterised by pH values in the range of 6-8 with hyochlorite anion (CIO-). The material may produce severe irritation to the eye ca produce conjunctivitis. The material may produce severe skin irritation after pro form of dermatitis is often characterised by skin redness Histologically there may be intercellular oedema of the s No significant acute toxicological data identified in litera Asthma-like symptoms may continue for months or ever known as reactive airways dysfunction syndrome (RAD: | CEffect of chemical Substances OT classifiable as to its carcinogenicity of in animal testing. Ing to inflammation. Repeated or prologous route are from studies performed with a susing pronounced inflammation. Repolonged or repeated exposure, and makes (erythema) thickening of the epiderm spongy layer (spongiosis) and intracel ture search. In years after exposure to the material S) which can occur after exposure to layer Carcinogenicity Carcinogenicity | ty to humans. In ged exposure to irritants may produce I sodium hypochlorite or chlorine gas. In biological species is (hypochlorous acid) HOCl, in equilibrium eated or prolonged exposure to irritants may ay produce a contact dermatitis (nonallergic). This his. Illular oedema of the epidermis. ends. This may be due to a non-allergic condition high levels of highly irritating compound. |
| SODIUM HYPOCHLORITE SODIUM HYDROXIDE WATER SODIUM HYPOCHLORITE & SODIUM HYDROXIDE Acute Toxicity | as sodium hypochlorite pentahydrate Hypochlorite salts are classified by IARC as Group 3: N Evidence of carcinogenicity may be inadequate or limite The material may produce moderate eye irritation leadir conjunctivitis. Most of the data for toxicity of hypochlorites by the oral systems, characterised by pH values in the range of 6-8 with hyochlorite anion (CIO-). The material may produce severe irritation to the eye ca produce conjunctivitis. The material may produce severe skin irritation after pro form of dermatitis is often characterised by skin redness Histologically there may be intercellular oedema of the s No significant acute toxicological data identified in litera Asthma-like symptoms may continue for months or ever known as reactive airways dysfunction syndrome (RAD) | CEffect of chemical Substances OT classifiable as to its carcinogenicited in animal testing. Ing to inflammation. Repeated or prologous are from studies performed with a standard active chemical standard pronounced inflammation. Repeated or repeated exposure, and makes (erythema) thickening of the epiderm spongy layer (spongiosis) and intracel ture search. In years after exposure to the material S) which can occur after exposure to the Carcinogenicity | ty to humans. Inged exposure to irritants may produce I sodium hypochlorite or chlorine gas. In biological species is (hypochlorous acid) HOCl, in equilibrium eated or prolonged exposure to irritants may ay produce a contact dermatitis (nonallergic). This his. Itular oedema of the epidermis. ends. This may be due to a non-allergic condition high levels of highly irritating compound. |

Legend:

X − Data either not available or does not fill the criteria for classification
 ✓ − Data available to make classification

SECTION 12 Ecological information

Toxicity

| | Endpoint | Test Duration (hr) | Species | Value | Source |
|---|------------------|--------------------|-------------------------------|------------------|------------------|
| Coogee Chemicals Sodium Hypochlorite | Not Available | Not Available | Not Available | Not Available | Not Available |
| | Endpoint | Test Duration (hr) | Species | Value | Source |
| | NOEC(ECx) | 72h | Algae or other aquatic plants | 0.005mg/l | 2 |
| sodium hypochlorite | EC50 | 72h | Algae or other aquatic plants | 0.018mg/l | 2 |
| | EC50 | 48h | Crustacea | 0.01mg/l | 4 |
| | LC50 | 96h | Fish | 0.037mg/l | 2 |
| | EC50 | 96h | Algae or other aquatic plants | ~0.1~0.4mg/l | 2 |
| | Endpoint | Test Duration (hr) | Species | Value | Source |
| | EC50 | 48h | Crustacea | 34.59-47.13mg/l | 4 |
| sodium hydroxide | EC50(ECx) | 48h | Crustacea | 34.59-47.13mg/l | 4 |
| | LC50 | 96h | Fish | 144-267mg/l | 4 |

Version No: 7.1

Coogee Chemicals Sodium Hypochlorite

Issue Date: 17/09/2021 Print Date: 18/10/2022

| | Endpoint | Test Duration (hr) | Species | Value | Source |
|---------|------------------|---|---------------|------------------|------------------|
| water | Not Available | Not Available | Not Available | Not Available | Not Available |
| Legend: | Ecotox databa | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 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 | | | |

Prevent, by any means available, spillage from entering drains or water courses. DO NOT discharge into sewer or waterways

Persistence and degradability

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

Bioaccumulative potential

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

Mobility in soil

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

SECTION 13 Disposal considerations

Waste treatment methods

▶ Containers may still present a chemical hazard/ danger when empty.

Product / Packaging disposal

- ▶ Return to supplier for reuse/ recycling if possible.
- ► Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.

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) | Class 8 Subrisk Not Applicable | | |
| Packing group | III | | |
| Environmental hazard | Environmentally hazardous | | |
| Special precautions for user | Special provisions 223 Limited quantity 5 L | | |

Air transport (ICAO-IATA / DGR)

| UN number | 1791 | |
|----------------------------|-----------------------|----------------------|
| UN proper shipping name | Hypochlorite solution | |
| Transport barard aloca(sa) | ICAO/IATA Class | 8 |
| Transport hazard class(es) | ERG Code | Not Applicable 8L |

Page 8 of 9

Coogee Chemicals Sodium Hypochlorite

Issue Date: **17/09/2021**Print Date: **18/10/2022**

| Packing group | III | | |
|------------------------------|---|---------|--|
| Environmental hazard | Environmentally hazardous | | |
| | Special provisions | A3 A803 | |
| | Cargo Only Packing Instructions | 856 | |
| | Cargo Only Maximum Qty / Pack | 60 L | |
| Special precautions for user | Passenger and Cargo Packing Instructions | 852 | |
| | Passenger and Cargo Maximum Qty / Pack | 5 L | |
| | 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 Special provisions Limited Quantities | F-A, S-B 223 274 900 5 L | |

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

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name | Group |
|---------------------|---------------|
| sodium hypochlorite | Not Available |
| sodium hydroxide | Not Available |
| water | Not Available |

Transport in bulk in accordance with the ICG Code

| Product name | Ship Type | |
|---------------------|---------------|--|
| sodium hypochlorite | Not Available | |
| sodium hydroxide | Not Available | |
| water | Not Available | |

SECTION 15 Regulatory information

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

sodium hypochlorite is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) Schedule 5
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

sodium hydroxide is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5
Australian Inventory of Industrial Chemicals (AIIC)

water is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

National Inventory Status

| National Inventory | Status |
|--|---|
| Australia - AIIC / Australia Non-Industrial Use | Yes |
| Canada - DSL | Yes |
| Canada - NDSL | No (sodium hypochlorite; sodium hydroxide; water) |
| China - IECSC | Yes |
| Europe - EINEC / ELINCS / NLP | Yes |
| Japan - ENCS | Yes |

Chemwatch: 63-4453 Page 9 of 9 Issue Date: 17/09/2021 Version No: 7.1 Print Date: 18/10/2022

Coogee Chemicals Sodium Hypochlorite

| National Inventory | Status |
|---------------------|---|
| Korea - KECI | Yes |
| New Zealand - NZIoC | Yes |
| Philippines - PICCS | Yes |
| USA - TSCA | Yes |
| Taiwan - TCSI | Yes |
| Mexico - INSQ | Yes |
| Vietnam - NCI | Yes |
| Russia - FBEPH | Yes |
| Legend: | Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration. |

SECTION 16 Other information

| Revision Date | 17/09/2021 |
|---------------|------------|
| Initial Date | 17/06/2016 |

SDS Version Summary

| Version | Date of Update | Sections Updated | |
|---------|----------------|--|--|
| 6.1 | 01/11/2019 | One-off system update. NOTE: This may or may not change the GHS classification | |
| 7.1 | 17/09/2021 | Classification | |

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.

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.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average

PC-STEL: Permissible Concentration-Short Term Exposure Limit

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

ES: Exposure Standard

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

AIIC: Australian Inventory of Industrial Chemicals

DSL: Domestic Substances List

NDSL: Non-Domestic Substances List

IECSC: Inventory of Existing Chemical Substance in China

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European List of Notified Chemical Substances

NLP: No-Longer Polymers

ENCS: Existing and New Chemical Substances Inventory

KECI: Korea Existing Chemicals Inventory

NZIoC: New Zealand Inventory of Chemicals

PICCS: Philippine Inventory of Chemicals and Chemical Substances

TSCA: Toxic Substances Control Act

TCSI: Taiwan Chemical Substance Inventory

INSQ: Inventario Nacional de Sustancias Químicas

NCI: National Chemical Inventory

FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH.