

Product Name **SODIUM HYPOCHLORITE (COOGEE CHEMICALS)**

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier Name** COOGEE CHEMICALS  
**Address** Cnr of Patterson and Kwinana Beach Roads, Kwinana, WA, AUSTRALIA, 6167  
**Telephone** (08) 9439 8200  
**Fax** (08) 9439 8300  
**Emergency** 1800 800 655  
**Email** businessrelations@coogee.com.au  
**Web Site** http://www.coogee.com.au

**Synonym(s)** 3600 - PRODUCT CODE • COOGEE SODIUM HYPOCHLORITE • NUFARM SODIUM HYPOCHLORITE (FORMERLY)

**Use(s)** BLEACHING AGENT • DISINFECTANT • OXIDISING AGENT

## 2. HAZARDS IDENTIFICATION

### CLASSIFIED AS HAZARDOUS ACCORDING TO ASCC CRITERIA

#### RISK PHRASES

R31 Contact with acids liberates toxic gas.  
R34 Causes burns.

#### SAFETY PHRASES

S2 Keep out of reach of children.  
S28 After contact with skin, wash immediately with plenty of water.  
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).  
S50 Do not mix with incompatible materials.

### CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

|                      |      |                     |    |                           |                |
|----------------------|------|---------------------|----|---------------------------|----------------|
| <b>UN No.</b>        | 1791 | <b>DG Class</b>     | 8  | <b>Subsidiary Risk(s)</b> | None Allocated |
| <b>Packing Group</b> | III  | <b>Hazchem Code</b> | 2X | <b>EPG</b>                | 8A1            |

## 3. COMPOSITION/ INFORMATION ON INGREDIENTS

| Ingredient          | Formula | CAS No.   | Content   |
|---------------------|---------|-----------|-----------|
| SODIUM HYPOCHLORITE | Cl-O.Na | 7681-52-9 | 10-30%    |
| WATER               | H2O     | 7732-18-5 | remainder |

## 4. FIRST AID MEASURES

**Eye** If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

**Inhalation** If inhaled, remove from contaminated area. To protect rescuer, use a Full-face Type B (Inorganic and acid gas) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.

**Skin** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

**Ingestion** For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

**Advice to Doctor** Treatment is symptomatic. Ingestion of hypochlorites releases hypochlorous acid which is irritating to the mucous membranes and skin but has low systemic toxicity. Buffer the acid by administering antacids.

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## 5. FIRE FIGHTING MEASURES

|                           |   |
|---------------------------|---|
| <b>Flammability</b>       | Non flammable. May evolve toxic gases (chlorine) when heated to decomposition.  |
| <b>Fire and Explosion</b> | Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas. |
| <b>Extinguishing</b>      | Prevent contamination of drains or waterways.   |
| <b>Hazchem Code</b>       | 2X  |

## 6. ACCIDENTAL RELEASE MEASURES

|                 |  |
|-----------------|--|
| <b>Spillage</b> | Contact emergency services where appropriate. Use personal protective equipment. Clear area of all unprotected personnel. Ventilate area where possible. Contain spillage, then cover / absorb spill with non-combustible absorbant material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. |
|-----------------|--|

## 7. STORAGE AND HANDLING

|                 |  |
|-----------------|--|
| <b>Storage</b>  | Store in a cool, dry, well ventilated area, removed from reducing agents, acids, organic materials, amines, metals, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage, sealed when not in use, vented and stored upright. Check regularly for leaks or spills. Large storage areas should have appropriate ventilation systems. |
| <b>Handling</b> | Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.  |

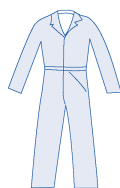
## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

| Exposure Stds | Ingredient          | Reference  | TWA |       | STEL |       |
|---------------|---------------------|------------|-----|-------|------|-------|
|               |                     |            | ppm | mg/m3 | ppm  | mg/m3 |
|               | SODIUM HYPOCHLORITE | ASCC (AUS) | 1.0 | 3.0   | --   | --    |

**Biological Limits** No biological limit allocated.

**Engineering Controls** Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

**PPE** Wear splash-proof goggles, rubber or PVC gloves and coveralls. When using large quantities or where heavy contamination is likely, wear: a rubber or a PVC apron. Where an inhalation risk exists, wear: a Full-face Type B (Inorganic and Acid gas) respirator.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                         |                              |                              |               |
|-------------------------|------------------------------|------------------------------|---------------|
| <b>Appearance</b>       | CLEAR YELLOW COLOURED LIQUID | <b>Solubility (Water)</b>    | SOLUBLE       |
| <b>Odour</b>            | CHLORINE ODOUR               | <b>Specific Gravity</b>      | 1.17 to 1.22  |
| <b>pH</b>               | ALKALINE                     | <b>% Volatiles</b>           | 80 % TO 95 %  |
| <b>Vapour Pressure</b>  | 17.5 mm Hg @ 20°C            | <b>Flammability</b>          | NON FLAMMABLE |
| <b>Vapour Density</b>   | NOT AVAILABLE                | <b>Flash Point</b>           | NOT RELEVANT  |
| <b>Boiling Point</b>    | > 100°C                      | <b>Upper Explosion Limit</b> | NOT RELEVANT  |
| <b>Melting Point</b>    | -25°C                        | <b>Lower Explosion Limit</b> | NOT RELEVANT  |
| <b>Evaporation Rate</b> | NOT AVAILABLE                |                              |               |

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## 10. STABILITY AND REACTIVITY

**Chemical Stability** Stable under recommended conditions of storage.

**Conditions to Avoid** Avoid heat, sparks, open flames and other ignition sources.

**Material to Avoid** Incompatible (violently) with acids (especially hydrochloric - evolving chlorine gas), organic materials, reducing agents (eg. amines), metallic powders, amines and heat sources. May be decomposed by hot water, releasing chlorine gas.

**Decomposition** May evolve toxic gases (chlorine) when heated to decomposition.

**Hazardous Reactions** Polymerization will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Health Hazard Summary** Highly corrosive. This product has the potential to cause serious adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Over exposure to chlorine vapour may result in lung tissue damage. Do not mix with other chemicals unless advised and specific instructions provided, as toxic and irritating gases may be evolved. Upon dilution, the adverse health effects associated with this product are reduced.

**Eye** Highly corrosive. Contact may result in irritation, lacrimation, pain, redness, conjunctivitis and corneal burns with possible permanent damage.

**Inhalation** Corrosive - toxic. Over exposure may result in mucous membrane irritation of the respiratory tract, coughing and possible burns. High level exposure may result in ulceration of the respiratory tract, breathing difficulties, chemical pneumonitis and pulmonary oedema.

**Skin** Corrosive. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns. Prolonged or repeated contact may result in ulceration.

**Ingestion** Corrosive - toxic. Ingestion may result in burns to the mouth and throat, nausea, vomiting, ulceration of the gastrointestinal tract, breathing difficulties, circulatory collapse and coma.

**Toxicity Data** SODIUM HYPOCHLORITE (7681-52-9)  
LD50 (Ingestion): 5800 mg/kg (mouse)  
TDLo (Ingestion): 1 gm/kg (woman)  
TDLo (Intravenous): 45 mg/kg (man)

## 12. ECOLOGICAL INFORMATION

**Environment** ATMOSPHERE: May release toxic chlorine gas. WATER: Hypochlorites are extremely toxic to fish; Exposure to 0.5 % over 96 hours resulted in death of trout. SOIL: May leach to groundwater with resultant toxicity to aquatic organisms. Hypochlorites are non-persistent in the environment and there is no accumulation potential as they gradually decompose into a salt and oxygen.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal** Add to a large volume of reducing solution (eg thiosulphate, metabisulphite, but not carbon, sulphur or strong reducer) and acidify with 3M sulphuric acid. When reduction is complete, add mixture to water and neutralise. Absorb with sand or similar non-combustible material and dispose of to an approved landfill site. Contact the manufacturer for additional information.

**Legislation** Dispose of in accordance with relevant local legislation.

## 14. TRANSPORT INFORMATION



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|               |                       |              |    |                    |                |
|---------------|-----------------------|--------------|----|--------------------|----------------|
| Shipping Name | HYPOCHLORITE SOLUTION |              |    | Subsidiary Risk(s) | None Allocated |
| UN No.        | 1791                  | DG Class     | 8  | EPG                | 8A1            |
| Packing Group | III                   | Hazchem Code | 2X |                    |                |

## 15. REGULATORY INFORMATION

**Poison Schedule** Classified as a Schedule 5 (S5) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

**AICS** All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

## 16. OTHER INFORMATION

**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.

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

### ABBREVIATIONS:

ADB - Air-Dry Basis.

BEI - Biological Exposure Indice(s)

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

CNS - Central Nervous System.

EINECS - European INventory of Existing Commercial chemical Substances.

IARC - International Agency for Research on Cancer.

M - moles per litre, a unit of concentration.

mg/m<sup>3</sup> - Milligrams per cubic metre.

NOS - Not Otherwise Specified.

NTP - National Toxicology Program.

OSHA - Occupational Safety and Health Administration.

pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).

ppm - Parts Per Million.

RTECS - Registry of Toxic Effects of Chemical Substances.

TWA/ES - Time Weighted Average or Exposure Standard.

### 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 Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

### PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Chem Alert 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.

COLOUR RATING SYSTEM: RMT has assigned all Chem Alert reports a colour rating of Green, Amber or Red for the sole purpose of providing users with a quick and easy means of determining the hazardous nature of a product. Safe handling recommendations are provided in all Chem Alert reports so as to clearly identify how users can control the hazards and thereby reduce the risk (or likelihood) of adverse effects. As a general guideline, a Green colour rating indicates a low hazard, an Amber colour rating indicates a moderate hazard and a Red colour rating indicates a high hazard.

While all due care has been taken by RMT in the preparation of the Colour Rating System, it is intended as a

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guide only and RMT does not provide any warranty in relation to the accuracy of the Colour Rating System. As far as is lawfully possible, RMT accepts no liability or responsibility whatsoever for the actions or omissions of any person in reliance on the Colour Rating System.

**Report Status**      This Chem Alert report has been independently compiled by RMT's scientific department utilising the original Material Safety Data Sheet ('MSDS') for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue.

This Chem Alert report does not constitute the manufacturer's original MSDS and is not intended to be a replacement for same. It is provided to subscribers of Chem Alert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this Chem Alert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this Chem Alert report.

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**End of Report**