

# Safety Data Sheet

**AQUAPAC**

Water Treatment & Specialty Chemicals

**Hazardous Chemical, Dangerous Goods**

## 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

**Product name:** Sodium Hypochlorite Solution

### Synonyms

Hypo  
Liquid chlorine  
Liquid pool chlorine  
Sodium hypochlorite

**Product Code**

**Recommended use:** Water treatment, bleach, steriliser, domestic pool usage

**Supplier:** Aquapac Pty Ltd  
**ABN:** 36 114 118 311  
**Street Address:** 88 Lee Holm Road  
St Marys NSW 2760  
**Telephone:** 02 9673 1192  
**Facsimile:** 02 9673 1193

**Emergency Telephone number:** 1800 HELP

## 2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.



### Signal Word

Danger

### Hazard Classifications

Skin Corrosion/Irritation - Category 1B  
Serious Eye Damage/Irritation - Category 1  
Acute Hazard to the Aquatic Environment - Category 1

### Hazard Statements

H314 Causes severe skin burns and eye damage.  
H400 Very toxic to aquatic life.

### Prevention Precautionary Statements

P102 Keep out of reach of children.  
P103 Read label before use.  
P260 Do not breathe dust, fume, gas, mist, vapours or spray.  
P264 Wash hands, face and all exposed skin thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective clothing, gloves, eye/face protection and suitable respirator.

### Response Precautionary Statements

P101 If medical advice is needed, have product container or label at hand.  
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.

# Safety Data Sheet

P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position 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 CENTER or doctor/physician.
P321	Specific treatment (see product label).
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.

## Storage Precautionary Statement

P405 Store locked up.

## Disposal Precautionary Statement

P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

**Poison Schedule:** Unknown

## DANGEROUS GOOD CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**Dangerous Goods Class:** 8

## 3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
Sodium hydroxide (Na(OH))	1310-73-2	0.7-2.0% %
Sodium hypochlorite	7681-52-9	10-20 % (w/w)
Water	7732-18-5	BALANCE %
Ingredients determined to be Non-Hazardous		Balance

## 4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** Remove the patient from the presence of fumes, whilst wearing a suitable breathing apparatus. Lay down the patient to allow them to breathe, keep them warm and relaxed. Remove any prosthesis that may hinder breathing. Seek for medical advice as soon as possible.

**Skin Contact:** Immediately flush the area and any contaminated clothing with an excess of water. Completely wash the victim with water for several minutes.

**Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately.

**Ingestion:** Do NOT induce vomiting. Rinse the mouth out with water and allow the patient to drink slowly. If vomiting occurs ensure that they do not choke or suffocate on their vomit.

**Notes to physician:** Treat symptomatically. Can cause corneal burns. Inhalation of chlorine gas may Symptoms caused by exposure: Chlorine gas released from sodium hypochlorite causes irritation of respiratory system, consisting in coughing, difficult breathing, stomatitis, nausea and pulmonary edema. Contact with skin can cause skin irritation, followed by blisters and eczema (especially at 12% concentration). The eye contact causes serious damages of eyes. Ingestion of tens of grams of sodium hypochlorite solution (12% concentration) can cause mucous membrane burns, perforation of the esophagus and stomach, and laryngeal oedema. Medical Attention

# Safety Data Sheet

and Special Treatment: In case of eyes and face splashing , treat eyes firstly. Treat symptomatically and supportively.

## 5. FIRE FIGHTING MEASURES

**Hazchem Code:** 2X

**Suitable extinguishing media:** If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

**Specific hazards:** Non-combustible material.

**Fire fighting further advice:** Not applicable.

## 6. ACCIDENTAL RELEASE MEASURES

### SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

### LARGE SPILLS

Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

**Dangerous Goods – Initial Emergency Response Guide No:** 37

## 7. HANDLING AND STORAGE

**Handling:** Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Store locked up. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.

This material is classified as a Class 8 Corrosive as per the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and/or the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and must be stored in accordance with the relevant regulations.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**National occupational exposure limits:**

	TWA		STEL		NOTICES
	ppm	mg/m3	ppm	mg/m3	
Sodium hydroxide	-	2 Peak limitation	-	-	-

As published by Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working

# Safety Data Sheet

week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering Measures:** Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.

**Personal Protection Equipment:** SAFETY SHOES, OVERALLS, GLOVES, SAFETY GLASSES.

Wear safety shoes, overalls, gloves, safety glasses. Available information suggests that gloves made from polyvinyl chloride (PVC) should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

**Hygiene measures:** Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form:** Clear Liquid  
**Colour:** Colourless  
**Odour:** Chlorine odour

**Solubility:** Miscible  
**Specific Gravity (20 °C):** 1.09 for 5.25% - 1.21 for 12.0%  
**Density:** 1.2  
**Boiling Point/Range (°C):** 100  
**pH:** >12

(Typical values only - consult specification sheet)  
N Av = Not available, N App = Not applicable

## 10. STABILITY AND REACTIVITY

**Chemical stability:** Stable under normal temperatures, pressure, handling, transport, storage, and usage. Must be stored in vented containers or the containers may burst during storage.

**Conditions to avoid:** Excessive heat can liberate toxic chlorine gas. Store in a cool dark ventilated location.

**Incompatible materials:** Avoid acids as this will release toxic and corrosive chlorine gas. Reacts with metal oxides to produce inorganic hypochlorites; these react violently with many organic compounds such as wool,

# Safety Data Sheet

AQUAPAC

Water Treatment & Specialty Chemicals

paper, oils, fuels and become readily flammable. Avoid contact with peroxides, amines, solvents, charcoal, copper, mercaptans, sulfur, organic sulfides, turpentine, and other combustibles. Can react with ammonia and other amine compounds to form chloramines which are explosively unstable. Do not dispose of with ammonium salts and acids as this forms nitrogen trichloride which is explosive. Can form explosive mixtures when heated in the presence of charcoal (or blackened food residues) to form explosive sodium chlorate. Incompatible with bisulfides.

**Hazardous decomposition products:** Can decompose under heating or exposure to incompatible materials to form explosive oxygen gas and/or toxic corrosive chlorine gas.

**Hazardous reactions:** See Incompatible materials.

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

### Acute Effects

**Inhalation:** Irritant. Inhalation of sprayed solution and vapours can cause respiratory system irritation, cough, difficulty of breathing, stomatitis, nausea and pulmonary edema. Classified as STOT Single Exposure 3.

**Skin contact:** Light irritant at low concentrations. Moderate irritant at medium concentrations (>5%). Corrosive at concentration higher than 10%. Skin corrosive category 1B.

**Ingestion:** Causes severe pain, nausea, vomiting, diarrhoea, and shock. May cause haemorrhaging of the digestive tract. May cause corrosion and permanent tissue destruction of the oesophagus and digestive tract. May be harmful if swallowed.

**Eye contact:** Causes eye damage. Eye damage, category 1. Eye contact causes serious burns and discomfort.

### Acute toxicity

**Inhalation:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L

NOAL (Rat): 0.5ppm (calculated for humans)

**Skin contact:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

LD50 (Rabbit): >10000mg/kg

**Ingestion:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

LD50 (Rat, male): 790mg/kg

**Corrosion/Irritancy:** Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes). Skin: this material has been classified as a Category 1B Hazard (irreversible effects to skin).

Eye irritant (Rabbit): 10mg - moderate

Skin irritant (Rabbit): 500mg/24h - moderate

**Sensitisation:** Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

**Aspiration hazard:** This material has been classified as non-hazardous.

**Specific target organ toxicity (single exposure):** This material has been classified as non-hazardous.

Product Name: Sodium Hypochlorite Solution

Reference No: SODIUM HYPO

Issued: 2016-12-01

Version: 2016.1

Page 5 of 8

# Safety Data Sheet

AQUAPAC

Water Treatment & Specialty Chemicals

## Chronic Toxicity

**Mutagenicity:** This material has been classified as non-hazardous.

**Carcinogenicity:** This material has been classified as non-hazardous.

**Reproductive toxicity (including via lactation):** This material has been classified as non-hazardous.

**Specific target organ toxicity (repeat exposure):** This material has been classified as non-hazardous.

## 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

**Acute aquatic hazard:** Toxic to bacterial, plant and animal life. May release dissolved Chlorine gas which could other damage to aquatic life. Do NOT let product reach waterways, drains and sewers.

**Long-term aquatic hazard:** Limited long term aquatic hazard as toxic chloride gas is liberated in normal conditions in trace amounts.

**Ecotoxicity:** No information available.

**Persistence and degradability:** Sodium chloride is a naturally occurring nutrient in the environment. Hypochlorite naturally degrades and evaporates out of water.

**Bioaccumulative potential:** Hypochlorite naturally decays into chlorine gas, oxygen gas and water which will leave bodies of water into the atmosphere.

**Mobility:** Low mobility in soil.

## 13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

## 14. TRANSPORT INFORMATION

### ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".



UN No: 1791  
Dangerous Goods Class: 8  
Packing Group: III  
Hazchem Code: 2X  
Emergency Response Guide No: 37

Proper Shipping Name: HYPOCHLORITE SOLUTION

Product Name: Sodium Hypochlorite Solution

Reference No: SODIUM HYPO

Issued: 2016-12-01

Version: 2016.1

Page 6 of 8

# Safety Data Sheet

**AQUAPAC**

Water Treatment & Specialty Chemicals

**Segregation Dangerous Goods:** Not to be loaded with explosives (Class 1), dangerous when wet substances (Class 4.3), oxidising agents (Class 5.1), organic peroxides (Class 5.2), radioactive substances (Class 7) or food and food packaging in any quantity. Note 1: Concentrated strong alkalis are incompatible with concentrated strong acids. Note 2: Concentrated strong acids are incompatible with concentrated strong alkalis. Note 3: Acids are incompatible with Dangerous Goods of Class 6 which are cyanides. Exemptions may apply.

## MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.



**UN No:** 1791  
**Dangerous Goods Class:** 8  
**Packing Group:** III

**Proper Shipping Name:** HYPOCHLORITE SOLUTION

## AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.



**UN No:** 1791  
**Dangerous Goods Class:** 8  
**Packing Group:** III

**Proper Shipping Name:** HYPOCHLORITE SOLUTION

## 15. REGULATORY INFORMATION

**This material is not subject to the following international agreements:**

Montreal Protocol (Ozone depleting substances)  
The Stockholm Convention (Persistent Organic Pollutants)  
The Rotterdam Convention (Prior Informed Consent)  
Basel Convention (Hazardous Waste)

**This material is subject to the following international agreements:**

International Convention for the Prevention of Pollution from Ships (MARPOL)  
• Annex II - Noxious Liquid Substances carried in Bulk

**This material/constituent(s) is covered by the following requirements:**

• All components of this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

## 16. OTHER INFORMATION

**Product Name:** Sodium Hypochlorite Solution

**Reference No:** SODIUM HYPO

**Issued:** 2016-12-01

**Version:** 2016.1

**Page** 7 of 8

# Safety Data Sheet



Reason for issue: Revised

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.