

## Safety Data Sheet

### 1. IDENTIFICATION OF THE PRODUCT AND THE SUPPLIER

#### 1.1 Product identifiers

Product name : SODIUM HYPOCHLORITE SOLUTION

#### 1.2 Other means of identification

Liquid pool chlorine, Liquid Bleach, Labarraque's Solution

#### 1.3 Recommended use of the product and restrictions on use

Sanitising agent, Bleaching agent, Swimming pool and spa disinfectant, Water purification, Oxidising agent.

#### 1.4 Details of supplier of the safety data sheet

Company : AGent Sales & Services Pty Ltd

Street address : 38 May Holman Drive, Bassendean, Western Australia 6054

Telephone : (+61 8) 6270 4500

Fax : (+61 8) 6270 4544

#### 1.5 Emergency telephone number

Telephone : (+61 8) 6270 4500

### 2. HAZARDS IDENTIFICATION

#### 2.1 GHS Classification

Skin corrosion (Sub-Category 1C)

Eye damage (Category 1)

Acute aquatic toxicity (Category 1)

#### 2.2 GHS Label elements, including precautionary statements

Pictogram :  

Signal word : Danger

#### Hazard statement(s)

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

#### Precautionary statement(s)

##### Prevention

P260 Do not breathe dust / fume / gas / mist / vapours / spray.

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear protective gloves / protective clothing / eye protection / face protection.

##### 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/shower.

P363 Wash contaminated clothing before re-use.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310	Immediately call a POISON CENTER or doctor/physician.
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.
P391	Collect spillage.
<b>Storage</b>	
P405	Store locked up.
<b>Disposal</b>	
P501	Dispose of contents/ container to an approved waste disposal plant.
<b>Other hazards</b>	
AUH031	Contact with acids liberates toxic gas.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	Classification	Concentration (%)
Sodium hypochlorite	7681-52-9	Skin Corr. 1C; Eye Dam.1; Aquatic Acute 1; H314; H400	10 - 30
Water	7732-18-5	Not listed	Balance

For the full text of the H-Statements mentioned in this section, see Section 16

### 4. FIRST AID MEASURES

#### 4.1 Description of First Aid measures

##### General advice

Contact the Poisons Information Centre (Phone: Australia 131 126; New Zealand 0800 764 766) or consult a doctor/physician. Show this safety data sheet to the doctor in attendance.

##### If inhaled

Remove from contaminated area – avoid becoming a casualty. To protect rescuer, use a Full-face Type B (Inorganic and acid gas) respirator or an Air-line respirator. Remove contaminated clothing and loosen clothing. Apply artificial respiration if not breathing. Seek immediate medical advice.

##### In case of skin contact

Remove contaminated clothing and wash affected areas with soap and running water for at least 15 minutes. Consult a doctor/physician. Launder clothing before reuse.

##### In case of eye contact

In case of eye contact, check for and remove any contact lenses. Immediately rinse thoroughly with plenty of running water for at least 15 minutes, keeping eyelids open. Seek immediate medical assistance.

##### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek immediate medical assistance.

#### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in Section 2.2 and/or Section 11. Delayed pulmonary oedema may result. 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.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Can cause corneal burns.

#### 4.4 First Aid facilities

Eye wash facilities and safety shower should be available.

### 5. FIRE FIGHTING MEASURES

#### 5.1 Suitable extinguishing media

Use water fog (or if unavailable, fine water spray), normal foam, dry chemical or carbon dioxide.

#### 5.2 Special hazards arising from the chemical

Non-combustible. Decomposes on heating, emitting toxic fumes, including those of chlorine.

#### 5.3 Special protective equipment and precautions for fire fighters

Wear self-contained breathing apparatus and suitable protective clothing.

#### 5.4 Hazchem code

2X

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Slippery when spilt. Avoid accidents, clean up immediately. Evacuate all non-essential personnel from affected area. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation.

For personal protection see section 8.

#### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. If contamination of sewers or waterways has occurred, advise local emergency services. Observe all local and national regulations.

#### 6.3 Methods and materials for containment and cleaning up

Slippery when spilt. Avoid accidents, clean up immediately. 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.

### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour, mist and aerosol. Keep out of reach of children. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

For precautions see Section 2.2.

#### 7.2 Conditions for safe storage, including any incompatibilities

Store in a secured, 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.

This material is classified as a Dangerous Goods Class 8 Corrosive Substance by the criteria of the ADG Code and must be stored and handled in accordance with the relevant regulations.

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### 8.1 Control parameters

Not value assigned for this specific material by SWA. However, Workplace Exposure Standard(s) for constituents(s) provided below:

##### Occupational Exposure Limits

Chemical Name	Reference	TWA – Peak Limitation		STEL		Carcinogen Category	Notices
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>		
Chlorine (7782-50-5)	ASCC	1	3	-	-	-	-

As published in "Workplace Exposure Standards for Airborne Contaminants, December 2011" by SWA.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace 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.

##### Biological Limits

None allocated for this product.

#### 8.2 Exposure controls

##### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements

### **Personal protective equipment (PPE)**

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods and environmental factors.

#### **Eye/face protection**

Face shield, safety glasses with side shields or splash-proof goggles. See Australian Standards (AS/NZS 1336 & 1337).

#### **Skin protection**

Wear protective gloves (long) and protective clothing (splash apron or equivalent chemical impervious outer garment and rubber boots) appropriate for the risk of exposure. See Australian Standards (AS 2161 & 2919 and AS/NZS 2210).

Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use. Wash and dry hands.

#### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face Type B (inorganic and acid gas) respirator. See Australian Standards (AS/NZS 1715 & 1716).

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Form : Liquid Colour : Clear, pale yellow - green
<b>Odour:</b>	Chlorine
<b>Odour Threshold:</b>	No data available
<b>pH:</b>	12.5 @ 1% aqueous solution
<b>Freezing Point:</b>	-25°C
<b>Boiling Point/Range:</b>	> 100°C
<b>Decomposition Temperature:</b>	No data available
<b>Evaporation Rate:</b>	No data available
<b>Flash Point:</b>	Not applicable
<b>Flammability Limits:</b>	Not applicable
<b>Specific Gravity:</b>	1.17 – 1.22 @ 20°C
<b>Vapour Density (air=1):</b>	No data available
<b>Vapour Pressure:</b>	17.5 mm Hg @ 20°C
<b>% Volatiles:</b>	80 - 95
<b>Solubility in water:</b>	Miscible in water

## **10. STABILITY AND REACTIVITY**

### **10.1 Reactivity**

Contact with acids liberates toxic gas. Contact with hydrochloric acid evolves chlorine gas. Reaction with formic acid becomes explosive at 55°C.

## 10.2 Chemical stability

Product is stable under normal conditions of use, storage and temperature. The amount of available chlorine diminishes over time.

## 10.3 Possibility of hazardous reactions

Polymerisation is not expected to occur.

## 10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

## 10.5 Incompatible materials

Incompatible with acids, metals, metal salts, peroxides, reducing agents and ethylene diamine tetraacetic acid. Incompatible with ammonia and ammonium compounds such as amines and ammonium salts.

## 10.6 Hazardous decomposition products

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

# 11. TOXICOLOGICAL INFORMATION

## 11.1 Information on toxicological effects

### Acute toxicity

LD50 Ingestion (mouse) : 5800 mg/kg

LDLo Ingestion (woman) : 1 g/kg

### Skin corrosion/irritation

No data available

### Serious eye damage/eye irritation

No data available

### Respiratory or skin sensitisation

No data available

### Germ cell mutagenicity

No data available

### Carcinogenicity

IARC: A4 : Not classifiable as a human carcinogen (Sodium hypochlorite)

3 - Group 3: Not classifiable as to its carcinogenicity to humans (Sodium hypochlorite).

### Reproductive toxicity

No data available

### Specific target organ toxicity (STOT) - single exposure

No data available

### Specific target organ toxicity (STOT) - repeated exposure

No data available

### Aspiration hazard

No data available

### Health Effects

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:

**Eye contact :** A severe eye irritant. Corrosive to eyes; contact may result in irritation, lacrimation, pain, redness, conjunctivitis and can cause corneal burns. Contamination of eyes can result in permanent injury.

**Skin contact :** Corrosive to skin; 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.

**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 (can be delayed up to 48 hours).

### 11.2 Information on possible routes of exposure

The substance can be absorbed into the body by ingestion, inhalation of its vapour, mist or aerosol and skin contact.

### 11.3 Additional Information

RTECS: Not available

## 12. ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity

Avoid contaminating waterways.

#### Toxicity to fish:

LC<sub>50</sub> (Fish) = 0.07 – 5.9 mg/L, 48h

### 12.2 Persistence and degradability

Hypochlorites are non-persistent in the environment

### 12.3 Bioaccumulative potential

No accumulation potential as they gradually decompose into a salt and oxygen.

### 12.4 Mobility in soil

No data available.

### 12.5 Other adverse effects

Very toxic to aquatic life.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Disposal methods and containers

Ensure waste disposal conforms to relevant local, state and federal authority waste disposal regulations. All empty packaging should be disposed of as unused product as required under the ADG Code

### 13.3 Special precautions for landfill or incineration

Contact a specialist disposal company or the local waste regulator for advice.

## 14. TRANSPORT INFORMATION

Classified as a Dangerous Goods by the criteria of the ADG Code for transport by road or rail

Classified as a Dangerous Goods by the criteria of the IMDG Code for transport by sea

Classified as a Dangerous Goods by the criteria of the IATA Code for transport by air

### 14.1 UN number

ADG : 1791

IMDG : 1791

IATA : 1791

### 14.2 Proper shipping name

ADG : HYPOCHLORITE SOLUTION

IMDG : HYPOCHLORITE SOLUTION

IATA : HYPOCHLORITE SOLUTION

### 14.3 Transport hazard class

ADG : 8 Corrosive

IMDG : 8 Corrosive

IATA : 8 Corrosive

### 14.4 Packing group

ADG : III

IMDG : III

IATA : III

### 14.5 Environmental hazards

ADG : Yes

IMDG Marine Pollutant : Yes

IATA : No

### 14.6 Special precautions for users

No data

### 14.7 Hazchem code

ADG : 2X

IMDG EMS : F-A, S-B

### 14.8 Dangerous goods initial emergency response guide (SAA/SNZ HB76:2010)

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## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations

## Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Poisons Schedule : S5

### Carcinogen classification under WHS Regulations 2011, Schedule 10

Not listed

#### Notification status

**AICS** On the inventory, or in compliance with the inventory.

## SECTION 16 OTHER INFORMATION

### Key / legend to abbreviations and acronyms used in the MSDS

ADG	Australian Dangerous Goods
ASCC	Australian Safety and Compensation Council
DEC	Department of Environment and Conservation
GHS	Globally Harmonised System of Classification & Labelling of Chemicals
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
NOHSC	National Occupational Health and Safety Commission
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
RTECS	Registry of Toxic Effects of Chemical Substances.
Aquatic Acute	Acute aquatic toxicity
Eye Dam.	Eye damage
Skin Corr.	Skin corrosion
Peak Limitations	A ceiling concentration that should not be exceeded over a measurement period, which should be as short as possible, but not exceeding 15 minutes
TWA	Time weighted average
STEL	Short term exposure level
SWA	Safe Work Australia
LD <sub>50</sub>	Lethal dose 50. The single dose of a substance that causes the death of 50% of an animal population from exposure to the substance by any route other than inhalation
LC <sub>50</sub>	Lethal concentration that kills 50% of an animal population within a specified time
TD Lo	The lowest dose of a substance known to have produced signs of toxicity
mg/m <sup>3</sup>	Milligrams per cubic metre
mg/kg	Milligrams per kilogram
pH	Relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline

### Literature references

"Workplace Exposure Standards for Airborne Contaminants, December 2011" by SWA Work Health and Safety Regulations 2011

"Registry of Toxic Effects of Chemical Substances". Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2012.

### Reason(s) for Issue:

Revised primary SDS

Alignment to GHS requirements

### Disclaimer

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