

# SODIUM HYPOCHLORITE

## Safety Data Sheet

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **SODIUM HYPOCHLORITE**

**Synonyms**

Liquid chlorine bleach 12.5%

**Product Code**

307

**Recommended use:** Universal disinfectant bleach

**Supplier Name** RJS Products Pty Ltd

**Address** 63 Christina Rd Villawood NSW 2163

**Telephone** 02 9723 2001

**Fax** 02 9723 2003

**Emergency** 1800 201 700

**Email** admin@rjsproducts.com.au

**Web Site** www.rjsproducts.com.au

**SDS Date** 22 September 2016 Version 1.1

### 2. HAZARDS IDENTIFICATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; **DANGEROUS GOODS**.

This material is hazardous according to Safe Work Australia; **HAZARDOUS SUBSTANCE**.

**Classification of the substance or mixture:**

Skin Corrosion - Sub-category 1C

Eye Damage - Category 1

Acute Aquatic Toxicity - Category 1

**SIGNAL WORD:** DANGER



**Hazard Statement(s):**

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.



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### 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.  
P321 Specific treatment (see First Aid Measures on Safety Data Sheet).  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P391 Collect spillage.

#### Storage:

P405 Store locked up.

#### Disposal:

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

#### Other Hazards:

AUH031 Contact with acids liberates toxic gas.

**Poisons Schedule (SUSMP):** S5 Caution.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Water	7732-18-5	>60%	-
Sodium hypochlorite	7681-52-9	10-<30%	H314 H400
Sodium hydroxide	1310-73-2	<1%	H290 H314 H318

### 4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

#### Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

#### Skin Contact:

If spilt on large areas of skin or hair, immediately drench with running water and remove clothing.



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Continue to wash skin and hair with plenty of water (and soap if material is insoluble) until advised to stop by the Poisons Information Centre or a doctor.

### *Eye Contact:*

Immediately wash in and around the eye area with large amounts of water for at least 15 minutes. Eyelids to be held apart. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport promptly to hospital or medical centre. Continue to wash with large amounts of water until medical help is available.

### *Ingestion:*

Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

### *Indication of immediate medical attention and special treatment needed:*

Treat symptomatically. Can cause corneal burns. Delayed pulmonary oedema may result.

## 5. FIRE FIGHTING MEASURES

### *Suitable Extinguishing Media:*

Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

*Hazchem or Emergency Action Code: 2X*

### **Specific hazards arising from the substance or mixture:**

Non-combustible material.

### *Special protective equipment and precautions for fire-fighters:*

Decomposes on heating emitting toxic fumes, including those of chlorine. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

## 6. ACCIDENTAL RELEASE MEASURES

### *Emergency procedures/Environmental precautions:*

Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

**Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:** Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in 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.

## 7. HANDLING AND STORAGE

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.

### *Precautions for safe handling:*

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Avoid skin and eye contact and breathing in vapour, mists and aerosols. Keep out of reach of children.

**Conditions for safe storage, including any incompatibilities:**

Store in cool place and out of direct sunlight. Store away from foodstuffs. Store away from acids. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control Parameters:** No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Chlorine: Peak Limitation = 3 mg/m<sup>3</sup> (1 ppm)  
Sodium hydroxide: Peak Limitation = 2 mg/m<sup>3</sup>

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

Peak Limitation - a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.

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.

**Appropriate engineering controls:**

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. If inhalation risk exists: Use with local exhaust ventilation or while wearing air supplied mask. Keep containers closed when not in use.

**Individual protection measures, such as 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.

OVERALLS, CHEMICAL GOGGLES, FACE SHIELD, GLOVES (Long), APRON, RUBBER BOOTS.



Wear overalls, chemical goggles, face shield, elbow-length impervious gloves, splash apron or equivalent chemical impervious outer garment, and rubber boots. Always wash hands before



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smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

If determined by a risk assessment an inhalation risk exists, wear an air supplied respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Colour:</b>	Pale Yellow - Green
<b>Odour:</b>	Chlorine
<b>Solubility:</b>	Miscible in water.
<b>Specific Gravity:</b>	1.2 @20°C
<b>Relative Vapour Density (air=1):</b>	Not available
<b>Vapour Pressure (20 °C):</b>	Not available
<b>Flash Point (°C):</b>	Not applicable
<b>Flammability Limits (%):</b>	Not applicable
<b>Autoignition Temperature (°C):</b>	Not available
<b>Boiling Point/Range (°C):</b>	Not available
<b>pH:</b>	12.5 (1% w/w)

### 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	Contact with acids liberates toxic gas.
<b>Chemical stability:</b> conditions of	Stable under normal ambient and anticipated storage and handling temperature and pressure. The amount of available chlorine diminishes over time.

#### *Possibility of hazardous reactions:*

Hazardous polymerisation will not occur. Reacts exothermically with acids . Reacts with ammonia, amines and ammonium salts to product chloramines. Decomposes on heating to produce chlorine gas.

<b>Conditions to avoid:</b> ignition, and	Avoid contact with foodstuffs. Avoid exposure to heat, sources of open flame. Avoid exposure to light. Avoid contact with other chemicals. Avoid contact with acids .
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<b>Incompatible materials:</b> agents , and	Incompatible with acids , metals , metal salts , peroxides , reducing ethylene diamine tetraacetic acid . Incompatible with ammonia and ammonium compounds such as amines and ammonium salts.
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*Hazardous decomposition products: Chlorine.*

### 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:

- Ingestion:** Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.
- Eye contact:** A severe eye irritant. Corrosive to eyes; contact can cause corneal burns.  
Contamination of eyes can result in permanent injury.
- Skin contact:** Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.
- Inhalation:** Breathing in mists or aerosols may produce respiratory irritation. Delayed (up to 48 hours) fluid build up in the lungs may occur.

**Acute toxicity:** No LD50 data available for the product. For the constituent SODIUM HYPOCHLORITE:  
Oral LD50 (mice): 5800 mg/kg

**Serious eye damage/irritation:** Moderate irritant (rabbit). Standard Draize test

**Chronic effects:** No information available for the product.

### 12. ECOLOGICAL INFORMATION

- Ecotoxicity** Avoid contaminating waterways. For SODIUM HYPOCHLORITE:
- Persistence/degradability:** This material is biodegradable.
- Aquatic toxicity:** Very toxic to aquatic organisms.  
48hr LC50 (fish): 0.07 - 5.9 mg/L.

**Disposal methods:**

Refer to Waste Management Authority. Dispose of material through a licensed waste contractor. Decontamination and destruction of containers should be considered.

### 13. DISPOSAL CONSIDERATIONS

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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 Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

**UN No:** 1791  
**Transport Hazard Class:** 8 Corrosive  
**Packing Group:** III  
*Proper Shipping* HYPOCHLORITE  
*Name or Technical Name:* SOLUTION 2X  
**Hazchem or Emergency Action Code:**



#### Marine Transport

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

**UN No:** 1791  
**Transport Hazard Class:** 8 Corrosive  
**Packing Group:** III  
*Proper Shipping*  
*Name or Technical Name:* HYPOCHLORITE SOLUTION





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IMDG EMS Fire: F-A  
IMDG EMS Spill: S-B

### Air Transport

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

UN No: 1791

Transport Hazard Class: 8 Corrosive

Packing Group: III

Proper Shipping Name or Technical Name: HYPOCHLORITE SOLUTION



## 15. REGULATORY INFORMATION

### *Classification:*

This material is hazardous according to Safe Work Australia; HAZARDOUS SUBSTANCE.

### *Classification of the substance or mixture:*

Skin Corrosion - Sub-category

1C Eye Damage - Category 1

Acute Aquatic Toxicity - Category 1

### *Hazard Statement(s):*

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

**Poisons Schedule (SUSMP):** S5 Caution.

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

## 16. OTHER INFORMATION

### Additional Information

#### ABBREVIATIONS:

ADB - Air-Dry Basis.

BEI - Biological Exposure Indices

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

CNS - Central Nervous System.

EINECS - European Inventory of Existing Commercial Substances.

GHS - Globally Harmonized System

IARC - International Agency for Research on Cancer.

M - moles per litre, a unit of concentration.

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

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:





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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 Clean Plus Chemicals 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 Clean Plus Chemicals 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.

### **Report Status**

This Safety Data Sheet document has been compiled by Clean Plus Chemicals. Further clarification regarding any aspect of this product should contact Clean Plus Chemicals directly. While Clean Plus Chemicals has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Clean Plus Chemicals 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 SDS.