

Material Safety Data Sheet



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **SODIUM HYPOCHLORITE SOLUTION (10-15% AVAILABLE CHLORINE)**

Recommended Use: Dairy, food and beverage industries: Sanitising processing equipment.
Textile industry: Bleaching agent.
Water treatment: Sanitising agent.
Available chlorine = 10 - 15%.

Supplier: Orica Australia Pty Ltd
ABN: 99 004 117 828
Street Address: 1 Nicholson Street,
Melbourne 3000
Australia
Telephone Number: +61 3 9665 7111
Facsimile: +61 3 9665 7937
Emergency Telephone: **1 800 033 111 (ALL HOURS)**

2. HAZARDS IDENTIFICATION

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

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

Risk Phrases: Contact with acids liberates toxic gas. Causes burns. Risk of serious damage to eyes. Very toxic to aquatic organisms.

Safety Phrases: Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible). Do not mix with acids. Avoid release to the environment. Refer to special instructions safety data sheets.

Poisons Schedule: S5 Caution.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Risk Phrases
Water	7732-18-5	>60%	-
Sodium hydroxide	1310-73-2	<1%	R35, R41
Sodium hypochlorite	7681-52-9	10-<30%	R31, R34, R41

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.

Product Name: SODIUM HYPOCHLORITE SOLUTION (10-15% AVAILABLE CHLORINE)
Substance No: 000034421401

Issued: 11/11/2009

Version: 7

Material Safety Data Sheet



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. 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:

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

Ingestion:

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

Medical attention and special treatment:

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

5. FIRE FIGHTING MEASURES

Hazards from combustion products:

Non-combustible material.

Precautions for fire fighters and special protective equipment:

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.

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 Code: 2X

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures:

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

Methods and materials for containment and clean 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.

Product Name: SODIUM HYPOCHLORITE SOLUTION (10-15% AVAILABLE CHLORINE)
Substance No: 000034421401

Issued: 11/11/2009

Version: 7

Material Safety Data Sheet



Conditions for safe storage:

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

Precautions for safe handling:

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits: No value assigned for this specific material by the National Occupational Health and Safety Commission. However, Exposure Standard(s) for constituent(s):

Chlorine: Peak Limitation = 3 mg/m³ (1 ppm)
Sodium hydroxide: Peak Limitation = 2 mg/m³

As published by the National Occupational Health and Safety Commission.

Peak Limitation - a ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes.

These 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 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.

Engineering controls:

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

Personal Protective Equipment:

The selection of PPE is dependant 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.

Orica Personal Protection Guide No. 1, 1998: D - OVERALLS, RUBBER BOOTS, CHEMICAL GOGGLES, FACE SHIELD, SAFETY SHOES, GLOVES (Long), APRON.



Wear overalls, chemical goggles, face shield, elbow-length impervious gloves, splash apron and rubber boots. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Product Name: SODIUM HYPOCHLORITE SOLUTION (10-15% AVAILABLE CHLORINE)
Substance No: 000034421401

Issued: 11/11/2009

Version: 7

Material Safety Data Sheet



Colour:	Pale Yellow - Green
Odour:	Slight Chlorine
Solubility:	Miscible in water.
Specific Gravity:	1.2 @20°C
Flash Point (°C):	Not applicable
Flammability Limits (%):	Not applicable
Solubility in water (g/L):	Complete
pH:	12.5 (1% w/w)

10. STABILITY AND REACTIVITY

Chemical stability:	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. The amount of available chlorine diminishes over time.
Conditions to avoid:	Avoid contact with foodstuffs. Avoid exposure to heat, sources of ignition, and open flame. Avoid contact with other chemicals.
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.
Hazardous decomposition products:	Chlorine.
Hazardous reactions:	Hazardous polymerisation will not occur. Reacts exothermically with acids. Reacts with acids liberating toxic gas. (Chlorine) Reacts with ammonia, amines and ammonium salts to produce chloramines. Decomposes on heating to produce chlorine gas.

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.

Long Term Effects:

No information available for the product.

Toxicological Data: No LD50 data available for the product. For the constituent

SODIUM HYPOCHLORITE:

Oral LD50 (mice): 5800 mg/kg

EYES: Moderate irritant (rabbit).

Product Name: SODIUM HYPOCHLORITE SOLUTION (10-15% AVAILABLE CHLORINE)
Substance No: 000034421401

Issued: 11/11/2009

Version: 7

12. ECOLOGICAL INFORMATION

Ecotoxicity	Avoid contaminating waterways. For SODIUM HYPOCHLORITE:
Persistence/degradability and mobility	This material is biodegradable.
Aquatic toxicity:	Toxic to aquatic organisms.
48hr LC50 (fish):	0.07 - 5.9 mg/L.
Terrestrial toxicity:	Expected to be harmful to terrestrial species.

13. DISPOSAL CONSIDERATIONS

Disposal methods:

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

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
Class-primary	8 Corrosive
Packing Group:	III
Proper Shipping Name:	HYPOCHLORITE SOLUTION
Hazchem Code:	2X

Marine Transport

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

UN No:	1791
Class-primary:	8 Corrosive
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; DANGEROUS GOODS.

UN No:	1791
Class-primary:	8 Corrosive
Packing Group:	III
Proper Shipping Name:	HYPOCHLORITE SOLUTION

Product Name: SODIUM HYPOCHLORITE SOLUTION (10-15% AVAILABLE CHLORINE)
Substance No: 000034421401

Issued: 11/11/2009

Version: 7

15. REGULATORY INFORMATION

Classification: This material is hazardous according to criteria of Safe Work Australia;
HAZARDOUS SUBSTANCE.

Hazard Category: C: Corrosive
N: Dangerous for the Environment

Risk Phrase(s): R31: Contact with acids liberates toxic gas.
R34: Causes burns.
R41: Risk of serious damage to eyes.
R50: Very toxic to aquatic organisms.

Safety Phrase(s): S24/25: Avoid contact with skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).
S50: Do not mix with acids. S61: Avoid release to the environment. Refer to special instructions Safety Data Sheets.

Poisons Schedule: S5 Caution.

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

16. OTHER INFORMATION

'Registry of Toxic Effects of Chemical Substances'. Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2009.

This material safety data sheet has been prepared by SH&E Shared Services, Orica.

Reason(s) for Issue:
Revised Primary MSDS
Alignment to HSNO requirements

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Orica Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Orica representative or Orica Limited at the contact details on page 1.

Orica Limited's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

Material Safety Data Sheet



Product Name: SODIUM HYPOCHLORITE SOLUTION (10-15%
AVAILABLE CHLORINE)
Substance No: 000034421401

Issued: 11/11/2009

Version: 7