

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: BLUEWATER LIQUID POOL CHLORINE

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

Supplier: Chempro Group Limited – T/A: Bluewater Poolcare
Street Address: 28 Bowden Road
Mt Wellington
Auckland
New Zealand

Telephone Number: +64 9 914 8599
Facsimile: +64 9 309 9264
Emergency Telephone: N Z 0800 243 622 or International +64 3 353 0199 (ALL HOURS)

2. HAZARDS IDENTIFICATION

Classified as a Dangerous Good according to NZS 5433:1999 Transport of Dangerous Goods on Land.

Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.

Subclasses: Subclass 6.1 Category E - Substances which are acutely toxic.
Subclass 8.2 Category C - Substances that are corrosive to dermal tissue.
Subclass 8.3 Category A - Substances that are corrosive to ocular tissue.
Subclass 9.1 Category B - Substances that are ecotoxic in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

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

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (Phone eg. 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. 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 the 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: Water fog (or if unavailable fine water spray), 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. Wash area down with excess water.

7. HANDLING AND STORAGE

Precautions for safe handling:

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

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

No value assigned for this specific material by the New Zealand Occupational Safety and Health Service (OSH). However, Exposure Standard(s) for decomposition product(s):
Chlorine: WES-TWA 0.5 ppm, 1.5 mg/m³; WES-STEL 1 ppm, 2.9 mg/m³

As published by the New Zealand Occupational Safety and Health Service (OSH).

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.

WES - STEL (Workplace Exposure Standard - Short Term Exposure Limits) - The 15 minute average exposure standard. Applies to any 15 minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both short-term and eight-hour, time-weighted average exposures should be determined.

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.

Minimum recommended requirements: 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
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
Autoignition Temperature (°C):	Not applicable
% Volatile by Volume:	Not available
Solubility in water (g/L):	Complete
Melting Point/Range (°C):	Not available
Decomposition Point (°C):	Not available
pH:	12.5 (1% w/w)
Viscosity:	Not available

10. STABILITY AND REACTIVITY

- Chemical stability:** Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
- Conditions to avoid:** None known.
- Incompatible materials:** Incompatible with acids , metals , metal salts , peroxides , reducing agents , and ethylene diamine tetraacetic acid .
- Hazardous decomposition products:**
Chlorine.
- Hazardous reactions:** None known.

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).

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 a Dangerous Good according to NZS 5433:1999 Transport of Dangerous Goods on Land.

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

15. REGULATORY INFORMATION

Classification: Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.

Subclasses: Subclass 6.1 Category E - Substances which are acutely toxic.
Subclass 8.2 Category C - Substances that are corrosive to dermal tissue.
Subclass 8.3 Category A - Substances that are corrosive to ocular tissue.
Subclass 9.1 Category B - Substances that are ecotoxic in the aquatic environment.

Approval Number: HSR 004692

16. OTHER INFORMATION

This SDS 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 Chempro Logistics 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 Chempro Logistics representative or Chempro Logistics Limited at the contact details on page 1.

Chempro Logistics 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.