

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** BLUEWATER HYDROCHLORIC ACID - 33%

**Other name(s):** Hydrogen chloride solution; Spirits of salts; Chlorohydric acid; Muriatic acid; Hydrochloric acid solution; Hydrochloric acid Concentrate.

**Recommended Use:** Precursor for generation of chlorine dioxide gas used in water treatment.

**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 5433:2007 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 B - Substances which are acutely toxic.  
Subclass 8.1 Category A - Substances that are corrosive to metals.  
Subclass 8.2 Category B - Substances that are corrosive to dermal tissue.  
Subclass 8.3 Category A - Substances that are corrosive to ocular tissue.  
Subclass 9.1 Category D - Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action.  
Subclass 9.3 Category C - Substances that are harmful to terrestrial vertebrates.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components / CAS Number	Proportion	Risk Phrases
Hydrochloric acid	>=20%	R34 R37 R41
Water 7732-18-5	to 100%	-

## 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. 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.

**Medical attention and special treatment:** Treat symptomatically. Can cause corneal burns.

**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. If safe to do so, remove containers from path of fire. 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:** 2R

**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). Neutralise with lime or soda ash. 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 incompatible materials described in Section 10. Store away from foodstuffs. 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, Workplace Exposure Standard(s) for constituent(s):

Hydrogen chloride: Ceiling 5 ppm, 7.5 mg/m<sup>3</sup>

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

WES - Ceiling (Workplace Exposure Standard - Ceiling). A concentration that should not be exceeded during any part of the working day.

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 suitable mist respirator. 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, FULL FACE MASK (Not required if wearing air supplied mask) AIR MASK , GLOVES (Long), APRON.

Wear overalls, full face shield, elbow-length impervious gloves, splash apron and rubber boots. Use with adequate ventilation. If inhalation risk exists, wear air-supplied mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

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

<b>Physical state:</b>	Clear Liquid
<b>Colour:</b>	Colourless to Slightly Yellow
<b>Odour:</b>	Pungent
<b>Solubility:</b>	Miscible with water.
<b>Specific Gravity:</b>	1.14 @ 20°C (for 28% concentration)
<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 applicable
<b>Boiling Point/Range (°C):</b>	98 (for 28% concentration)
<b>pH:</b>	ca. 1

### **10. STABILITY AND REACTIVITY**

<b>Chemical stability:</b>	Corrosive to many metals with the liberation of extremely flammable hydrogen gas.
<b>Conditions to avoid:</b>	Avoid contact with foodstuffs.
<b>Incompatible materials:</b>	Incompatible with alkalis , oxidising agents , sodium hypochlorite , cyanides , and many metals .
<b>Hazardous decomposition products:</b>	Hydrogen chloride.
<b>Hazardous reactions:</b>	Reacts violently with alkalis . Reacts with oxidising agents and sodium hypochlorite liberating toxic 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:

<b>Ingestion:</b>	Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.
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**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 will produce respiratory irritation.

**Long Term Effects:** Repeated exposure to low levels of hydrochloric acid may produce discolouration and erosion of teeth and ulceration of the nasal passages.

**Toxicological Data:** No LD50 data available for the product. However, for constituent(s) HYDROGEN CHLORIDE:  
Oral LD50 (rat): >900 mg/kg.  
Inhalation LC50 (rat): 3124 ppm/1h.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** Avoid contaminating waterways.

## 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 5433:2007 Transport of Dangerous Goods on Land.

**UN No:** 1789  
**Class-primary:** 8 Corrosive  
**Packing Group:** II  
**Proper Shipping Name:** HYDROCHLORIC ACID  
**Hazchem Code:** 2R

### 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:** 1789  
**Class-primary:** 8 Corrosive  
**Packing Group:** II  
**Proper Shipping Name:** HYDROCHLORIC ACID

### 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:** 1789  
**Class-primary:** 8 Corrosive  
**Packing Group:** II  
**Proper Shipping Name:** HYDROCHLORIC ACID

## 15. REGULATORY INFORMATION

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

**Subclasses:** Subclass 6.1 Category B - Substances which are acutely toxic.  
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Subclass 9.1 Category D - Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action.  
Subclass 9.3 Category C - Substances that are harmful to terrestrial vertebrates.

**Approval Number:** HSR0033899

## **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.