



# Paramount Pools & Spas

a division of PoolQuip Limited

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**If you have a Chemical Emergency phone 111 and ask for Fire**  
**In case of Poisoning contact The National Poisons Centre on 0800 POISON (0800 764 766)**  
**The most current version of this document is available online at [www.poolquip.co.nz](http://www.poolquip.co.nz)**

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# MATERIAL SAFETY DATA SHEET (MSDS)

## 1.0 Product & Company Information

Revision Date: April 2011

Product Name: **Hydrochloric Acid**

Other Names: Muriatic Acid, Hydrogen Chloride Solution, Spirits of Salt

Uses: Decreasing the Ph of Water in Swimming Pools

Distributor Details: As per header at top of page and any of our authorised retailers & distributors

## 2.0 Hazard Data

Hazardous according to criteria of NOHSC/ASCC.

Classified as Dangerous Goods According to NZS 5433:1999.

Toxic Corrosive

Risk Phrases: R23 Toxic by inhalation.

R35 Causes severe burns.

Safety Phrases: S1/2 Keep locked up and out of the reach of children.

S9 Keep container in a well-ventilated place.

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 where possible).

ERMA New Zealand Approval Code: HSR001557

HSNO Hazard Classification:

### 3.0 Composition

Chemical Name:	Hydrochloric Acid
CAS Number:	7647-01-0
Percentage Rating:	30%

Chemical Name:	Water
CAS Number:	7732-18-5
Percentage Rating:	Balance

### 4.0 First Aid Measures

Description of necessary measures according to routes of exposure.

Swallowed: Immediately rinse mouth with water. Give water to drink. DO NOT induce vomiting. If vomiting occurs give further water. Seek immediate medical attention.

Eyes: Speed is essential! Immediately flush eyes with plenty of lukewarm water holding eyelids open. If available, a neutral saline solution may be used. Seek immediate medical attention.

Skin: Immediately remove contaminated clothing. Flush affected area with lukewarm water. Seek immediate medical attention.

Inhaled: Remove patient to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

Advice to Doctor: Treat symptomatically based on individual reactions of patient and judgement of doctor. NOTE: For advice in an emergency, contact a Poisons Information Centre (Australia 13-11-26 or New Zealand 0800-764-766).

Aggravated medical This product is Toxic by inhalation and Corrosive - causes severe burns. Long term effects include erosion of the teeth and bronchial irritation.

## 5.0 Fire Fighting Measures

Extinguishing Media	In case of fire, appropriate extinguishing media include water fog, foam, carbon dioxide and dry chemical powder.
Hazards from Combustion Products	Non-combustible liquid. However, will support combustion of other products. Incompatible with oxidizing agents, alkalis, metals, organic halogen compounds, nitro and chloro organic compounds and sources of ignition. Corrosive to steel, aluminium, tin, zinc and most metals generating flammable/explosive hydrogen gas. Will emit toxic fumes in a fire including hydrogen chloride.
Special Protective Precautions and Equipment for Fire Fighters	Fire fighters should wear a self contained breathing apparatus and full protective clothing along with protective equipment.
Flammability Conditions	Product is a non-flammable liquid. However, flammable hydrogen gas may be formed in contact with metals.
Hazchem Code	N/A

## 6.0 Accidental Release Measures

Emergency Procedures	Personnel involved in the clean up should wear full protective clothing. Evacuate all unnecessary personnel. Eliminate all sources of ignition. Increase ventilation. Avoid walking through spilled product as it is corrosive and may be slippery. Stop leak if safe to do so. Do NOT let product reach drains or waterways. If product does enter a waterway advise the Environmental Protection Authority or your local Waste Management. Use corrosion-resistant and spark proof equipment.
Methods and Materials for Containment and Clean Up	Soak up spilled product using absorbent non-combustible material such as sand or soil. Avoid using sawdust or cellulose. When saturated, collect material into suitable, labelled, dry, sealable containers and hold for safe disposal. Solutions can be recovered or carefully diluted with water and cautiously neutralized with alkalis such as lime or soda ash, adjusting pH to 6-10.

## 7.0 Handling & Storage

Precautions for Safe Handling	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment.
Conditions for Safe Storage (Including any compatibles)	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials including oxidizing agents, acids, alkalis, metals, organic halogen compounds, nitro and chloro organic compounds and sources of ignition. Use corrosion resistant structural materials and lighting and ventilation systems in the storage area. Protect from direct sunlight, moisture and static discharges. This product has a UN classification of 1789 and a Dangerous Goods Class 8 (corrosive) according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
Container Type	Packaging must comply with requirements of Hazardous Substances (Packaging) Regulations 2001. Store in original packaging as approved by manufacturer.

## 8.0 Exposure Controls / Personal Protection

National Exposure Standards	The following exposure standard has been established for this product by The Australian Safety and Compensation Council (ASCC) formerly known as NOHSC; Hydrochloric Acid cas no: 7647-01-0 TWA = 5ppm 7.5mg/m3 Peak limitation
Biological Limit Values	No information available on biological limit values for this product.
Engineering Controls	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Personal Protection	RESPIRATOR: Wear an approved full-face piece respirator with high efficiency particulate filter (AS/NZS1715/1716). EYES: Wear chemical splash goggles in combination with a full-face shield (AS1336/1337). HANDS: Wear impervious, elbow-length neoprene or nitrile gloves (AS2161). CLOTHING: Chemical-resistant coveralls and safety footwear (AS3765/2210).

## 9.0 Physical and Chemical Properties

Appearance	colourless to yellow fuming pungent liquid
Formula	HCl

Odour	pungent odour
Vapour Pressure	Not Applicable
Vapour Density	Not Applicable
Boiling Point	Not Applicable
Melting Point	Not Applicable
Solubility in Water	100%
Specific Gravity	1.1 (Water = 1)
Flash Point	Not Applicable
pH	< 1
Rate of Solid Materials	No data available
Decomposition Temperature	No data available
Additional Information	Solubility: Soluble in water, alcohol and benzene.

## 10.0 Stability and Reactivity

Chemical Stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to Avoid	Avoid excessive heat, direct sunlight, moisture, static discharges, freezing and high temperatures.
Incompatible Materials	Incompatible with oxidizing agents, acids, alkalis, metals, organic halogen compounds, nitro and chloro organic compounds and sources of ignition
Hazardous Decomposition Products	Will emit toxic fumes in a fire including hydrogen chloride. Contact with oxidizing agents liberates toxic chlorine gas. Corrosive to metals generating flammable/explosive hydrogen gas.
Hazardous Reactions	Hazardous polymerization will not occur.

## 11.0 Toxicological Information

Toxicity Data	Oral LD50 Rat: >900mg/Kg Inhale LC50 Rat: 300ppm/1hr
Health Effects – Acute	
Swallowed	Corrosive! Causes burning of the mouth, throat and oesophagus, vomiting, diarrhoea, collapse and possible death may result.
Eye	Extremely corrosive! Can penetrate deeply causing irritation or severe burns depending on the concentration and duration of exposure. In severe cases, ulceration and permanent damage may occur.
Skin	Extremely corrosive! Capable of causing severe skin burns with deep ulceration. Can penetrate to deeper layers of skin. Corrosion will continue until removed. Severity depends on concentration and duration of exposure. Repeated/prolonged contact with dilute solutions

may lead to irritant contact dermatitis.

Inhaled

Toxic by inhalation! Effects of inhaling vapour and mists have not been clearly established. Most references indicate that irritation of the nose, throat and lungs would occur due to the corrosive nature of the product.

## 12.0 Ecological Information

Ecotoxicity	No data available
Persistence and Degradability	No information available on persistence/degradability for this product
Mobility	No information available on mobility for this product.
Environmental Fate (Exposure)	Do not allow product to enter drains, waterways or sewers.
Bioaccumulative Potential	No information available on bioaccumulation for this product.

## 13.0 Disposal Considerations

Disposal	Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of at an approved facility.
Special Precautions for Land Fill or Incineration	The waste code classification is to be carried out according to the European Waste Catalogue (EWC) specifically for each branch of industry and each type of process.

## 14.0 Transport Information

Land and Sea Transport

UN Number	1789
Shipping Name	Hydrochloric Acid
Dangerous Goods Class	8
Packing Group	II
Hazchem Code	2R

## 15.0 Regulatory Information

Classified as hazardous in accordance with Annex I European Directive 67/548/EEC and The Australian Safety and Compensation Council (ASCC) formerly known as NOHSC.

Poisons Schedule 6

EPG	40
AICS Name	Hydrochloric Acid
NZ Toxic Substance	3
HSNO Hazard Classification	
ERMA Approval Code	HSR001557

#### 16.0 Other Information

None