

MATERIAL SAFETY DATA SHEET

SECTION 1: IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product name: **HYDROCHLORIC ACID**
Other names: Spirits of Salt, Muriatic Acid.
Recommended Use: Brick cleaning, concrete cleaning, surface rust removal.
Supplier: Tradextra Ltd
Address: 3 Glenmore Drive, Warkworth 0910
PO Box 437, Warkworth 0941
Telephone: (+64) 9 425 0235
Facsimile: (+64) 9 425 0236
Website: www.tradextra.co.nz
Emergency phone: **National Poison Centre**
0800 764 766

SECTION 2: HAZARD(S) IDENTIFICATION

Product is classified as hazardous according to Schedules 1 to 6 of the *Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001* of the HSNO Act, 1996.

HSNO Classifications

6.1B (inhalation), 6.1D (oral, dermal), 8.1A, 8.2B, 8.3A, 9.1D, 9.3C
DANGER

Signal Word

Hazard Statements:

H290 May be corrosive to metals
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H433 Harmful to terrestrial vertebrates

H312 Harmful in contact with skin
H318 Causes serious eye damage
H330 Fatal if inhaled
H102 Harmful to aquatic life

Precautions Statements:

P102 Keep out of reach of children
P234 Keep only in original container
P264 Wash hands thoroughly after handling
P273 Avoid release to environment

P284 Wear respiratory protection in confined spaces/poorly ventilated areas

P260 Do not breathe mist or vapours
P103 Read label before use
P271 Use only outdoors or in well-ventilated area
P280 Wear protective gloves and eye protection

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Ingredient	CAS no.	Proportion (%w/v)
Hydrogen Chloride	7647-01-0	37-39
Water	7732-18-5	balance

SECTION 4: FIRST-AID MEASURES

For advice, contact National Poison Centre (0800 POISON; 0800 764 766) or a doctor. Have product container or label available.

Swallowed

If swallowed, do NOT induce vomiting. Rinse mouth. Where there is risk of vomiting, lean person forward or place on left side to avoid aspiration of product into lungs. Obtain immediate medical attention.

Skin Contact

if skin or hair contact occurs, remove contaminated clothing and wash affected area with soap and water. If irritation persists, get medical attention.

Eye Contact

Hold eyelids apart and flush the eye continuously with running water. Continue flushing for at least 15 minutes. Remove contact lenses if present and easy to do, after the first 5 minutes and continue rinsing. Get medical attention if irritation persists.

Inhalation

Move the victim to fresh air immediately. Keep warm and at rest until recovered. Get medical attention if symptoms continue. Begin artificial respiration if breathing has stopped. Get immediate medical attention.

First Aid Facilities

Provide eye baths and safety showers close to areas where splashing may occur.

Medical Attention

Treat according to symptoms. Gastric lavage may be indicated if ingested. Any product aspirated during vomiting may produce lung injury.

SECTION 5: FIRE-FIGHTING MEASURES

Flashpoint: Non-flammable

Flammable Limits: LFL: - UFL: -

Extinguishing media: Water fog, foam, CO² or dry chemical. Use media suitable for surrounding materials.

Fire & Explosion Hazards: Will not burn. Keep containers cool with water. Pressurized containers may explode. Forms corrosive fumes on contact with air. Contact with metals will result in formation of flammable hydrogen. High temperature will cause thermal decomposition.

Firefighting Equipment: Full protective clothing and self-contained breathing apparatus (SCBA).

In event of fire:

- Alert Fire Station (111); advise location and nature of hazard.
- Wear breathing apparatus and protective gloves
- Shut off product that may 'fuel' a fire if safe to do so.
- If safe, switch off electrical equipment until vapour hazard removed.
- Allow trained personnel to attend a fire in progress, providing fire-fighters with this Safety Data Sheet.
- Prevent product and extinguishing media from escaping to drains and waterways.

Hazards from combustion products: Toxic fumes of hydrogen chloride. Reactions with other materials may form toxic chlorine gas.

Hazchem code: 2R

SECTION 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures & containment: refer to 'Fire Fighting Measures,' 'First Aid Measures' and 'Stability and Reactivity.'

Minor spills

- Remove or eliminate all ignition sources.
- Clean up spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Wear personal protective equipment.
- Contain and absorb small quantities with vermiculite or other absorbent material.

- Collect residues and waste material in a labelled container suitable for flammables.
- Seal container and dispose of safely.

Major spills

- Clear area of personnel and move upwind.
- Alert Fire Station (111); advise location and nature of hazard.
- Wear breathing apparatus and protective gloves.
- Stop leak of safe to do so.
- Contain spill with sand, earth or vermiculite.
- Prevent by any means available, spillage from entering drains, sewers, watercourses, or low-lying areas.
- Eliminate sources of ignition, naked lights. No smoking.
- Increase ventilation.
- Water spray or fog may be used to disperse/absorb vapour.
- Use only spark-proof tools, e.g. shovels, and explosion proof equipment, e.g. pumps.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent run off into drains.
- If contamination of drains or waterways occurs, advise Emergency Services and Local or Regional authority.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handlings: Read product label before use. Wear personal protective equipment and clothing including gloves and wash hands with soap and water after handling. Use in well-ventilated area. Wash hands with soap and water after handling. Wash protective clothing separate to household laundry. Avoid release to environment.

Conditions for safe storage: Locked up in original packaging in a cool, dry, well-ventilated place away from direct sunlight. This product will fuel a fire in progress. Keep out of reach of children. Check containers periodically for leaks or distortion.

Incompatible materials: Strong oxidizers, alkalis, chemically active metals (e.g. aluminium, magnesium, sodium, potassium), many organic compounds.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Health Exposure Standards: Workplace Exposure Standards (WES) have been set for this product.

WES-TWA

Hydrogen chloride ceiling, 5 ppm (7.5 mg/m³)

Biological limit values: None established.

Engineering controls: Ventilation – Avoid breathing mists or vapours. Use product outdoors or in well-ventilated area. Wear a SAA approved respirator when using in confined area or where over-exposure risk exists.

Personal Protective Equipment:

Respiratory Protection – Where air concentration may exceed the limits described in the Workplace Exposure Standards, wear SAA approved respiratory protection such as a half-face filter mask to protect from overexposure by inhalation. A type “A” filter material is considered suitable for this product.

Eye Protection – protect eyes from splashes or vapour. Always use safety glasses with side shields or goggles are worn.

Skin / Body Protection – Gloves are recommended to prevent irritant effects and avoid degreasing/drying of the skin. Prevent contact with clothes and skin, e.g. wear apron or overalls.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Unit of Measurement	Typical value
Appearance	-	Clear liquid
Odour	-	Characteristic, pungent
Flash Point	°C	>93
Auto-ignition	°C	Not known
Boiling point	°C	Not known
Specific gravity @ 20°C	g/ml	1.03
Vapour pressure @ 20°C	kPa	Not available
Vapour density @ 20°C	kPa	Not available
Flammability Limits in air	%	Not available
Viscosity	cSt	Not available
Volatiles	%vol/vol	100
Alkalinity/acidity (as pH)	-	Very acidic
Solubility in Water	% w/w	Soluble

The values listed are indicative of this product's physical and chemical properties.

SECTION 10: STABILITY AND REACTIVITY

Chemical stability: Stable at room temperature and pressure.

Conditions to avoid: Contact with incompatible materials (refer Hazardous reactions). Attacks some plastics, rubber and coatings.

Hazardous decomposition products: See 'Fire Fighting Measures' and 'Hazardous Reactions.'

Hazardous reactions: Highly corrosive to most metals forming flammable hydrogen gas. Reacts violently with bases and oxidizers to form toxic chlorine gas. Reacts with many other alkalis and organic materials.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Effects:

Ingestion – Harmful if swallowed. Will burn and cause pain to throat, trachea, respiratory tract and gastrointestinal tract.

Eye contact – This product will cause serious damage to eyes.

Skin contact – This product will cause pain and burns to skin. It is important to wash any skin contamination off immediately and thoroughly.

Inhalation – vapours may be toxic and cause severe discomfort, irritation or burning to the upper respiratory tract. Possible symptoms are cough and chest pain and may develop as rapid breathing, shock, blood pressure changes and respiration distress.

Chronic Effects: No specific additional information.

Other Health Effects Information: n/a.

Toxicological Information:

Hydrogen Chloride	Oral, LD50, rat 700mg/kg
	Dermal, LD50, mouse 1449 mg/kg
	Inhalation, LC50 (4hr), mouse 3.2mg/L

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Aquatic toxicity – This product is harmful to aquatic life. Do not discharge product direct to sewer, drains or waterways.

Persistence/degradability – not expected to be persistent or bio accumulative in environment.

Mobility –Product is soluble in water.

Other information – Product is classified as harmful to terrestrial vertebrates.

Ecotoxicity information:

Hydrogen chloride	Freshwater fish	LC50 (96hr) 20.5 mg/L
	<i>Daphnia magna</i>	LC80 (72hr) 56 mg/L

Environmental Exposure Standards:

EEL (water) Not set

EEL (soil) Not set

EEL (sediments) Not set

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods: Empty packaging should be disposed of through suitably qualified or license contractor. Care should be taken to ensure compliance with national, regional and local authority regulations. Packaging may still contain product residue.

SECTION 14: TRANSPORT INFORMATION

UN number: 1789
Shipping name: HYDROCHLOIC ACID
Class: 8
Sub-class: 6.1
Packing Group: II
Hazchem code: 2R

Dangerous Goods Segregation – This product is classified as Dangerous Goods Class 8, packing group II. Please consult NZS 5433:2007 Transport of Dangerous Goods on Land for information.

SECTION 15: REGULATORY INFORMATION

Country / Region: New Zealand

Inventory: NZCIL

Status: Listed

ERMA New Zealand Approval Code: HSR001557; Hydrochloric Acid, >25% aqueous solution.

SECTION 16: ANY OTHER RELEVANT INFORMATION

Date of issue: 20th June 2022

Reasons for issue: 5-year review of Safety Data Sheet.

Abbreviations:

CAS No	Chemical Abstracts Number
EPA/ ERMA	Environmental Risk Management Authority
HSNO	Hazardous Substances and New Organisms
NZCI	New Zealand Chemical Inventory
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
WES	Workplace Exposure Standard

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses, but it is no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact Tradextra Ltd.

END OF SAFETY DATA SHEET