



SAFETY DATA SHEET

SECTION 1 IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Identifier	HYDROCHLORIC ACID
Other Names	Muriatic Acid, Hydrogen Chloride Solution
Manufacturer's Product Code	16409
Recommended Use	General chemical – acid

Details of Supplier/Manufacturer

Company:	Recochem Inc. ABN: 69 010 485 999
Address:	1809 Lytton Road, Lytton, Queensland 4178
Phone:	(07) 3308 5200 Fax: (07) 3308 5201
Website:	www.recochem.com.au

Emergency Telephone Numbers

Business Hours:	(07) 3308 5200
After Hours:	1300 131 001
Poisons Information:	Australia: 13 11 26 New Zealand: 0800 764 766

SECTION 2 HAZARDS IDENTIFICATION

Hazardous chemical	<i>according to classification by Safe Work Australia</i>
Dangerous goods	<i>according to the Australian Code for the Transport of Dangerous Goods by Road and Rail</i>

Signal Word	DANGER
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GHS Classification	Pictogram	Hazard statement
Skin Corrosion/Irritation, Category 1B	 CORROSION	H314 Causes severe skin burns and eye damage
Specific Target Organ Toxicity (Single exposure), Category 3	 EXCLAMATION MARK	H335 May cause respiratory irritation

Product: HYDROCHLORIC ACID**Precautionary statements:**

<i>GENERAL</i>	P101 P102 P103	If medical advice is needed, have product container or label at hand Keep out of reach of children Read label before use
<i>PREVENTATIVE</i>	P260 P261 P264 P271 P280	Do not breathe dusts or mists Avoid breathing mist/vapours/spray Wash thoroughly after handling Use only outdoors or in a well-ventilated area Wear protective gloves/eye protection/face protection
<i>RESPONSE</i>	P301 + P330 + P331 P303 + P361 + P353 P304 + P340 P305 + P351 + P338 P310 P312 P363	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting IF ON SKIN (or hair): Take off contaminated clothing and wash before reuse. Rinse skin with water/shower IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician Call a POISON CENTER or doctor/physician if you feel unwell Wash contaminated clothing before reuse
<i>STORAGE</i>	P403 + P233 P405	Store in a well-ventilated place. Keep container tightly closed Store locked up
<i>DISPOSAL</i>	P501	Dispose of contents/container in accordance with local regulations

SECTION 3 COMPOSITION AND INFORMATION ON INGREDIENTS**Ingredients Names and Proportions**

Chemical Entity	CAS Number	Proportion (%)
Hydrochloric Acid	7647-01-0	< 30

SECTION 4 FIRST AID MEASURES**Description of necessary first aid measures**

Inhalation:	Remove victim from exposure if safe to do so. If rapid recovery does not occur, transport to nearest medical facility for additional treatment. Remove contaminated clothing. Seek immediate medical advice.
Skin Contact:	If spilt on large area of skin or hair, immediately drench with running water and remove contaminated clothing. Continue to wash skin and hair with plenty of water until advised to stop by the Poisons Information Centre or a doctor. For skin burns, cover with a clean, dry dressing until medical help is available.
Eye Contact:	If in eyes, hold eyes open, flood with water for at least 15 minutes or until advised by the Poisons Information Centre or a doctor.
Ingestion:	Immediately rinse mouth with water. Do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

Product: HYDROCHLORIC ACID

Symptoms caused by exposure

Inhalation:	May cause respiratory irritation, including breathing difficulty, lung inflammation, sneezing and throat swelling.
Skin:	A severe irritant. May include burning sensation, redness, swelling and/or blisters.
Eye:	A severe irritant. May include pain or burning sensation, redness, swelling and/or blurred vision.
Ingestion:	Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.

Medical attention and special treatment

Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Suitable extinguishing equipment

Not combustible, however, if material is involved in a fire use: water fog or fine water spray, foam, dry chemical powder, carbon dioxide.

Specific hazards arising from the chemical

Contact with metals may liberate hydrogen gas.

Special protective equipment and precautions for fire fighters

Wear full protective clothing and self-contained breathing apparatus. Hazchem code 2R.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid contact with spilled or released material. Shut off leaks, if possible without personal risks. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Wear protective equipment to prevent skin and eye contact and inhalation of vapours. Work upwind or increase ventilation.

Environmental precautions

Use appropriate containment to avoid environmental contamination. Prevent from spreading and entering waterway using sand, earth or other appropriate barriers. Ventilate contaminated area thoroughly. If contamination of sewers or waterways has occurred advise local emergency services.

Methods and materials for containment and cleaning up

Cover with absorbent material (inert material, sand or soil). Neutralise with lime or soda ash. Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal. Caution - heat may be evolved on contact with water.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Non-combustible material. Avoid skin and eye contact and breathing vapour. Handle and open containers with care in a well-ventilated area. Ensure that the workplace is ventilated such that the Occupational Exposure limit is not exceeded. Wash thoroughly after handling. Do not eat, drink or smoke in contaminated areas. Before eating, drinking or smoking, remove contaminated clothing and wash hands.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated place out of direct sunlight. Store away from incompatible materials (see SECTION 10). Keep containers closed when not in use – check regularly for spills.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure control measures

From National Occupational Health & Safety Commission (NOHSC) Worksafe Australia -
Hydrogen Chloride: 7.5mg/m³ (5ppm) (peak limitation) TWA

Biological monitoring

No biological limit allocated.

Engineering controls

Ensure that adequate ventilation is provided. Maintain air concentrations below recommended exposure standards. Avoid generating and inhaling mists and vapours. Keep containers closed when not in use. Always wash hands before eating, drinking or using the toilet.

Individual protection measures

Eye and face protection:	Wear safety goggles.
Skin protection:	Use solvent resistant gloves, nitrile for longer term protection or PVC and neoprene for incidental splashes.
Respiratory protection:	If work practices do not maintain airborne level below the exposure standard, use appropriate respiratory protection equipment. When using respirators, select an appropriate combination of mask and filter. Select a filter for organic gases and vapours (boiling point > 65°C). Respirators should comply with AS1716 or an equivalent approved by a state/territory authority.
Thermal hazards:	Not applicable.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colourless to yellow fuming liquid
Odour:	Hydrogen chloride gas
Odour threshold (ppm):	Data not available
pH:	< 1
Melting point/freezing point (°C):	-63 to -27
Initial boiling point and boiling range (°C):	91 - 98
Flash point (°C):	Data not available
Evaporation rate (Butyl acetate = 1):	Data not available
Flammability:	Non-combustible
Upper/lower flammability or explosive limits (%):	Data not available
Vapour pressure (mmHg @ 20°C):	11 - 115
Vapour density (air = 1):	1.26
Density (g/ml @ 20°C):	1.18
Solubility (kg/m ³):	Miscible with water
Partition coefficient: n-octanol/water:	Data not available
Auto-ignition temperature (°C):	Data not available
Decomposition temperature (°C):	Data not available
Kinematic viscosity (mm ² /s @ 25°C):	Data not available

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SECTION 10 STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions of use.

Chemical stability

Stable under normal conditions of use.

Possibility of hazardous reactions

Reacts exothermally with water.

Conditions to avoid

Exposure to water vapour. Will absorb moisture from the atmosphere.

Incompatible materials

Alkalis, aluminium, tin, zinc and organic materials.

Hazardous decomposition products

None.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity:	LD50 Oral (rat) = 900 mg/kg. LC50 Inhalation (rat) = 3124ppm/1h; LC50 Inhalation (mouse) = 1108ppm/1h.
Skin corrosion/irritation:	Highly corrosive to skin – may cause burns.
Serious eye damage/irritation:	Highly corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.
Respiratory or skin sensitisation:	Not expected to be a sensitiser.
Germ cell mutagenicity:	Not expected to be mutagenic.
Carcinogenicity:	Not expected to be carcinogenic.
Reproductive toxicity:	Not expected to impair fertility.
Specific Target Organ Toxicity (STOT) – single exposure:	Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract. Breathing in mists or aerosols may result in respiratory irritation.
Specific Target Organ Toxicity (STOT) – repeated exposure:	Data not available.
Aspiration hazard:	Data not available.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity

Avoid contaminating waterways. This product is highly acidic. If large spills occur a water pH drop could be responsible for an environmental effect on aquatic organisms.

Acute toxicity:

Fish –	LC50 (Mosquito fish, female) = 282 mg/L/24h
Aquatic invertebrate –	LC50 (Shore crab) = 240mg/L/48h; LC50 (Sand shrimp) = 260mg/L/48h
Algae –	Data not available
Microorganisms –	Data not available

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Chronic toxicity:

Fish –	Data not available
Aquatic invertebrate –	Data not available
Algae –	Data not available
Microorganisms –	Data not available

Persistence and degradability

Data not available.

Bioaccumulative potential

Data not available.

Mobility in soil

Miscible with water.

Other adverse effects

Data not available.

SECTION 13 DISPOSAL CONSIDERATIONS

Ensure waste disposal conforms to local waste disposal regulations.

SECTION 14 TRANSPORT INFORMATION

UN number:	1789
Proper shipping name:	HYDROCHLORIC ACID
Australian Dangerous Goods class:	8
Australian Dangerous Goods packing group:	II
Hazchem code:	2R

SECTION 15 REGULATORY INFORMATION

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP), Poisons Schedule:	6
Australian Inventory of Chemical Substances (AICS):	Listed
Dangerous Goods Initial Emergency Response Guide (SAA/SNZ HB76):	40

SECTION 16 OTHER INFORMATION

Date of preparation:	12/11/2015
Revision number:	6
Changes in this revision:	Update to GHS SDS standard

This SDS summarises product safety information at the date of issue, to the best of our knowledge, as a general guide. Recochem cannot anticipate or control the conditions under which the product is used, so prior to usage each user must assess and control the risks associated with their use of the product. Users should also consult the relevant legislation governing the use and storage of this product. We make no warranties, express or implied, and assume no liability in connection with any use of information contained within this document. If clarification or further information is needed, the user should contact Recochem on (07) 3308 5200.
