

# SAFETY DATA SHEET

## HYDROCHLORIC ACID

Infosafe No.: LQ8LR  
ISSUED Date : 15/12/2017  
ISSUED by: BONDALL PTY LTD

### 1. IDENTIFICATION

#### GHS Product Identifier

HYDROCHLORIC ACID

#### Product Code

500 mL - 90000, 1 L - 90010, 2.5 L - 90020, 5 L - 90030, 20 L - 90040

#### Company Name

BONDALL PTY LTD (ABN 27 008 734 996)

#### Address

113 Belmont Avenue Belmont  
WA 6104 Australia

#### Telephone/Fax Number

Tel: Australia: +61 (8)6272 3800 / New Zealand: 0800 474 7738

Fax: +61 (8)9277 4068

#### Emergency phone number

+ 61400 705 773 or Poisons Information Centre: 0800 764 766

#### Recommended use of the chemical and restrictions on use

Swimming pool cleaner, pH neutraliser.

General chemical - boiler remover, ore reduction, pickling and metal cleaning, laboratory reagent.

### 2. HAZARD IDENTIFICATION

#### GHS classification of the substance/mixture

Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.

Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land.

6.1B (Inhalation – vapours, dusts or mists) - Substance that is acutely toxic

6.1D (Oral) - Substance that is acutely toxic

6.1D (Dermal) - Substance that is acutely toxic

8.1A Substance that is corrosive to metals

8.2B Substance that is corrosive to dermal tissue

8.3A Substance that is corrosive to ocular tissue

9.1D Substance that is slightly harmful to the aquatic environment or is otherwise designed for biocidal action

9.3C Substance that is harmful to terrestrial vertebrates

#### Signal Word (s)

DANGER

#### Hazard Statement (s)

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H330 Fatal if inhaled.

H402 Harmful to aquatic life.

H433 Harmful to terrestrial vertebrates.

## Pictogram (s)

Skull and crossbones, Corrosion



### Precautionary statement – Prevention

- P102 Keep out of reach of children.
- P103 Read label before use.
- P234 Keep only in original container.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P264 Wash contaminated skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P284 Wear respiratory protection.

### Precautionary statement – Response

- P101 If medical advice is needed, have product container or label at hand.
- P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P330 Rinse mouth.
- P363 Wash contaminated clothing before reuse.
- P390 Absorb spillage to prevent material damage.

### Precautionary statement – Storage

- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.
- P406 Store in corrosive resistant/ container with a resistant inner liner.

### Precautionary statement – Disposal

P501 In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided. See Section 13 for disposal details.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Ingredients

Name	CAS	Proportion
Water	7732-18-5	70-74 %
Hydrochloric acid	7647-01-0	26-30 %
Titanium dioxide	13463-67-7	<1 %

## 4. FIRST-AID MEASURES

### Inhalation

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

**Ingestion**

Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

**Skin**

Remove all contaminated clothing immediately. Wash gently and thoroughly with water and non-abrasive soap for 15 minutes. Ensure contaminated clothing is washed before re-use or discard. Seek immediate medical attention.

**Eye contact**

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical attention.

**First Aid Facilities**

Eyewash, safety shower and normal washroom facilities.

**Advice to Doctor**

Treat symptomatically.

**Other Information**

For advice in an emergency, contact a Poisons Information Centre or a doctor at once. (0800 764 766)

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**5. FIRE-FIGHTING MEASURES**

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**Suitable Extinguishing Media**

Use carbon dioxide, dry chemical, foam, water fog or water mist.

**Unsuitable Extinguishing Media**

Do not use water jet.

**Hazards from Combustion Products**

Under fire conditions this product may emit toxic and/or irritating fumes and gases including carbon monoxide, carbon dioxide and hydrogen chloride.

**Specific Hazards Arising From The Chemical**

This product is non combustible. However heating can cause expansion or decomposition leading to violent rupture of containers.

**Hazchem Code**

2R

**Decomposition Temperature**

Not available

**Precautions in connection with Fire**

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

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**6. ACCIDENTAL RELEASE MEASURES**

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**Emergency Procedures**

Evacuate all unprotected personnel. Do not allow contact with skin and eyes. Do not breathe mist/vapour. It is essential to wear self-contained breathing apparatus (S.C.B.A) and full personal protective equipment and clothing to prevent exposure. Avoid exposure to spillage by collecting the material using vacuum and transfer into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations. As a water based product, if spilt on electrical equipment the product will cause short-circuits.

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**7. HANDLING AND STORAGE**

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**Precautions for Safe Handling**

Toxic and corrosive liquid. Attacks skin and eyes. Causes burns. Avoid exposure. Exposure without protection must be prevented. Wear appropriate personal protective equipment and clothing to prevent exposure. Use in designated areas with local exhaust ventilation. DO NOT store or use in confined spaces. Build up of mists or vapours in the atmosphere must be prevented. Keep containers tightly closed. Do not smoke. Maintain high standards of personal hygiene i.e. washing hands prior to eating, drinking, smoking or using toilet facilities.

### **Conditions for safe storage, including any incompatibilities**

This material is Toxic and corrosive and must be stored, handled and maintained according to the appropriate regulations. Limit quantity in storage. Restrict access to storage area. Post appropriate warning signs. Consider leak detection and alarm systems, as required. Provide a catch-tank in a bunded area. Structural materials and lighting and ventilation systems in storage area should be corrosion resistant. Store in a cool, dry, well-ventilated area away from sources of ignition, oxidizing agents, strong mineral acids, bases metal and/or water. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Ensure that storage conditions comply with applicable local and national regulations. Protect from freezing.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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### **Occupational exposure limit values**

No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

Hydrochloric acid

TWA: Ceiling 5 ppm

TWA: Ceiling 7.5 mg/m<sup>3</sup>

Titanium dioxide

TWA: 10 mg/m<sup>3</sup>

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

Ceiling: A concentration that should not be exceeded during any part of the working day.

### **Biological Limit Values**

No biological limits allocated.

### **Appropriate Engineering Controls**

This substance is hazardous and should be used with a local exhaust ventilation system, drawing vapours away from workers' breathing zone. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn.

### **Respiratory Protection**

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.

Reference should be made to Australian Standards AS/NZS 1715 (2009), Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716 (2012), Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

### **Eye Protection**

Safety glasses with full face shield should be used. Eye protection devices should conform to relevant regulations.

Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 2 & 6 (2012) - Eye Protectors for Industrial Applications.

### **Hand Protection**

Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1 (2016): Occupational protective gloves - Selection, use and maintenance.

### **Body Protection**

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Description	Properties	Description
Form	Liquid	Appearance	Clear fuming liquid
Colour	Colourless to yellow	Odour	Sharp, irritating pungent acrid hydrogen chloride gas.
Decomposition Temperature	Not available	Melting Point	Not available
Freezing Point	-63 to -27°C	Boiling Point	91 - 98°C
Solubility in Water	Miscible with water	Specific Gravity	1.18
pH	<1	Vapour Pressure	11 - 115 at 20°C
Vapour Density (Air=1)	1.26	Evaporation Rate	Not available
Odour Threshold	Not available	Viscosity	Not available
Partition Coefficient: n-octanol/water	Not available	Density	Not available
Flash Point	Not available	Flammability	Non-combustible liquid
Auto-Ignition Temperature	Not available	Flammable Limits - Lower	Not available
Flammable Limits - Upper	Not available		

## 10. STABILITY AND REACTIVITY

### Chemical Stability

Stable under normal conditions of storage and handling.

### Reactivity and Stability

Reacts with incompatible materials.

### Conditions to Avoid

Extremes of temperature, moisture and direct sunlight.

### Incompatible materials

Strong oxidizing agents, alkalis and most metals.

### Hazardous Decomposition Products

Thermal decomposition may result in the release of toxic and/or irritating fumes and gases including carbon monoxide, carbon dioxide and hydrogen chloride.

### Possibility of hazardous reactions

Contact with metals may liberate hydrogen gas. Contact with oxidizing agents may liberate chlorine gas. Contact with water causes exothermic reaction.

### Hazardous Polymerization

Not available

## 11. TOXICOLOGICAL INFORMATION

### Toxicology Information

Acute toxicity data for product is given below:

#### Acute Toxicity - Oral

LD50(rat): 900 mg/kg

#### Acute Toxicity - Inhalation

LC50(rat): 3124 ppm/1h

LC50(mouse): 1108 ppm/1h

**Ingestion**

Ingestion of this product will cause nausea, vomiting, abdominal pain and chemical burns to the mouth, throat and stomach.

**Inhalation**

Fatal if inhaled. Inhalation may cause headaches, impairment of judgement and in extreme cases can lead to unconsciousness or death. Inhalation will result in respiratory irritation and possible harmful corrosive effects including lesions of the nasal septum, pulmonary edema, pneumonitis and emphysema.

**Skin**

Causes burns. Corrosive to the skin. Skin contact can cause redness, itching, irritation, severe pain and chemical burns with resultant tissue destruction.

**Eye**

Causes eye damage. Eye contact will cause stinging, blurring, tearing, severe pain and possible burns, necrosis, permanent damage and blindness.

**Respiratory sensitisation**

Not expected to be a respiratory sensitiser.

**Skin Sensitisation**

Not expected to be a skin sensitiser.

**Germ cell mutagenicity**

Not considered to be a mutagenic hazard.

**Carcinogenicity**

Not considered to be a carcinogenic hazard.

Titanium dioxide is listed as a Group 2B: Possibly carcinogenic to humans according to International Agency for Research on Cancer (IARC).

Hydrochloric acid is listed as a Group 3: Not classifiable as to carcinogenicity to humans according to International Agency for Research on Cancer (IARC).

**Reproductive Toxicity**

Not considered to be toxic to reproduction.

**STOT-single exposure**

Not expected to cause toxicity to a specific target organ.

**STOT-repeated exposure**

Not expected to cause toxicity to a specific target organ.

**Aspiration Hazard**

Not expected to be an aspiration hazard.

## 12. ECOLOGICAL INFORMATION

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**Ecotoxicity**

Harmful to aquatic life. Harmful to terrestrial vertebrates.

**Persistence and degradability**

Not available

**Mobility**

Not available

**Bioaccumulative Potential**

Not available

**Other Adverse Effects**

Not available

**Environmental Protection**

Do not discharge this material into waterways, drains and sewers.

**Acute Toxicity - Fish**

LC50(mosquito fish): 282 mg/L/24h

**Acute Toxicity - Other Organisms**

LC50(shore crab): 240 mg/L/48h

LC50(sand shrimp): 260 mg/L/48h

## 13. DISPOSAL CONSIDERATIONS

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### Disposal considerations

#### Product Disposal:

Product wastes are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. This product can be disposed through a licensed commercial waste collection service. In this specific case the product is water-based/water-soluble and therefore can be sent through a Waste Water Treatment Plant and after treatment can be discharged into environment through the sewerage or drainage systems as authorized.

Personal protective clothing and equipment as specified in Section 8 of this SDS must be worn during handling and disposal of this product. The ventilation requirements as specified in the same section must also be followed, and the precautions given in Section 7 of this SDS regarding handling must also be followed. Do not dispose into the sewerage system. Do not discharge into drains or watercourses or dispose where ground or surface waters may be affected.

In New Zealand, the disposal agency or contractor must comply with the New Zealand Hazardous Substances (Disposal) Regulations 2001. Further details regarding disposal can be obtained on the EPA New Zealand website under specific group standards.

#### Container Disposal:

The container or packaging must be cleaned and rendered incapable of holding any substance. It can then be disposed of in a manner consistent with that of the substance it contained. In this instance the packaging can be disposed through a commercial waste collection service.

Alternatively, the container or packaging can be recycled if the hazardous residues have been thoroughly cleaned or rendered non-hazardous.

In New Zealand, the packaging (that may or may not hold any residual substance) that is lawfully disposed of by householders or other consumers through a public or commercial waste collection service is a means of compliance with regulations.

## 14. TRANSPORT INFORMATION

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### Transport Information

#### Road and Rail Transport:

This material is classified as Dangerous Goods Class 8 Corrosive Substances

Must not be loaded in the same freight container or on the same vehicle with:

- Class 1: Explosives
- Division 5.1: Oxidising substances
- Division 5.2: Organic peroxides

Class 7: Radioactive materials unless specifically exempted

-Food items.

Note 1: Cyanides (Division 6.1) must not be loaded in the same freight container or on the same vehicle with acids (Class 8).

Note 2: Strong acids must not be loaded in the same freight container or on the same vehicle with strong alkalis. Packing Group I and II acids and alkalis should be considered as strong.

Must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:

- Division 4.3: Dangerous when wet Substances

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:

- Division 4.3: Dangerous when wet substances
  - Division 5.1: Oxidising substances
  - Division 5.2: Organic peroxides
- Food items.

#### Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Class/Division: 8

UN No: 1789

Proper Shipping Name: HYDROCHLORIC ACID

Packing Group: II  
EMS: F-A, S-B  
Special Provisions: -

Air Transport (ICAO/IATA):

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Class/Division: 8

UN No: 1789

Proper Shipping Name: Hydrochloric acid

Packing Group: II

Packaging Instructions (passenger & cargo): 854

Packaging Instructions (cargo only): 855

Hazard Label: Corrosive

Special Provisions: A3, A803

**U.N. Number**

1789

**UN proper shipping name**

HYDROCHLORIC ACID

**Transport hazard class(es)**

8

**Packing Group**

II

**Hazchem Code**

2R

**IERG Number**

40

**IMDG Marine pollutant**

No

**Transport in Bulk**

Not available

**Special Precautions for User**

Not available

## 15. REGULATORY INFORMATION

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**Regulatory information**

Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.

Group Standard: Hydrochloric acid, >25% aqueous solution

**HSNO Approval Number**

HSR001557

## 16. OTHER INFORMATION

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**Date of preparation or last revision of SDS**

SDS created: December 2017

**References**

- Workplace Exposure Standards and Biological Exposure Indices.
- Transport of Dangerous goods on land NZS 5433.
- Preparation of Safety Data Sheets - Approved Code of Practice Under the HSNO Act 1996 (HSNO CoP 8-1 09-06).



- Assigning a hazardous substance to a group standard.

- American Conference of Industrial Hygienists (ACGIH).

## **END OF SDS**

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