

Material Safety Data Sheet

Infosafe No™ LQ1TY Issue Date : November 2012 ISSUED by BONDALL

Product Name : **HYDROCHLORIC ACID**

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name 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
Emergency Tel. 0400 705 773 or Poisons Information Centre: 13 11 26
Telephone/Fax Number Tel: (08) 6272 3800
Fax: (08) 9277 4068
Recommended Use Swimming pool cleaner, pH neutraliser.
General chemical - boiler remover, ore reduction, pickling and metal cleaning,
laboratory reagent.

2. HAZARDS IDENTIFICATION

Hazard Classification Classified as hazardous
HAZARDOUS SUBSTANCE.
DANGEROUS GOODS.
Hazard classification according to the criteria of NOHSC.
Dangerous goods classification according to the Australia Dangerous Goods Code.
Risk Phrase(s) Classified as hazardous
R34 Causes burns.
R37 Irritating to respiratory system.
Safety Phrase(s) S25 Avoid contact with eyes.
S27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of - (to be specified by the manufacturer).
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S64 If swallowed, rinse mouth with water (only if person is conscious).

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. Wash gently and thoroughly with water and non-abrasive soap for 15 minutes. Ensure contaminated clothing is washed before re-use or discard. Seek medical attention.
Eye 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. Seek immediate medical attention.
First Aid Facilities Eye wash fountain, safety shower and normal washroom facilities.
Advice to Doctor Treat symptomatically.
Other Information For advice in an emergency, contact a Poisons Information Centre (Phone Australia 13 1126) or a doctor at once.

5. FIRE FIGHTING MEASURES

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

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

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

Hazchem Code 2R

Precautions in connection with Fire Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures Wear appropriate personal protective equipment and clothing to minimise exposure. Increase ventilation. If possible contain the spill. Place inert absorbent material onto spillage. Collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to the 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.

7. HANDLING AND STORAGE

Precautions for Safe Handling Corrosive liquid. Attacks skin and eyes. Causes burns. Wear suitable protective clothing, gloves and eye/face protection when mixing and using. Use in designated areas with adequate ventilation. Avoid breathing in vapours, mist or fumes. Keep containers closed when not in use. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands after handling, and before eating, drinking, smoking or using the toilet facilities.

Conditions for Safe Storage Store in a cool dry well-ventilated area. Store away from oxidising agents and bases/acids. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Provide a catch-tank in a bunded area. Store in original packages as approved by manufacturer. For information on the design of the storeroom, reference should be made to Australian Standard AS 3780-2008: The storage and handling of corrosive substances. Reference should also be made to all State and Federal regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards No exposure value assigned for this material by Safe Work, Australia. However, the available exposure limits for ingredients are listed below:

Safe Work, Australia Exposure Standards:

Substance	TWA		STEL		NOTICES
	ppm	mg/m ³	ppm	mg/m ³	
Hydrogen chloride	5	7.5	-	-	Peak limitation

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.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

Peak Limitation: A ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes.

Biological Limit Values No biological limits allocated.

Engineering Controls Provide sufficient ventilation to keep airborne levels below the exposure limits. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required.

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Respiratory Protection	If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable organic vapour filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.
Eye Protection	Safety glasses with side shields, goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - 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. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
Body Protection	Suitable protective work wear, 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

Appearance	Clear fuming liquid
Odour	Sharp, irritating pungent acrid hydrogen chloride gas.
Freezing Point	-63 to -27°C
Boiling Point	91 - 98°C
Solubility in Water	Miscible with water
Specific Gravity	1.18
pH Value	<1
Vapour Pressure	11 - 115 at 20°C
Vapour Density (Air=1)	1.26
Colour	Colourless to yellow
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.
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.
Hazardous Reactions	Contact with metals may liberate hydrogen gas. Contact with oxidizing agents may liberate chlorine gas. Contact with water causes exothermic reaction.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	Acute toxicity data for product is given below:
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Inhalation	Irritating to respiratory system. Inhalation of product vapours will cause irritation of the nose, throat and respiratory system.
Ingestion	Ingestion of this product will cause nausea, vomiting, abdominal pain and chemical burns to the mouth, throat and stomach.
Skin	Causes burns. Corrosive to the skin. Skin contact can cause redness, itching, irritation, severe pain and chemical burns with resultant tissue destruction.
Eye	Corrosive to eyes - contact can cause corneal burns. Contamination of eyes can result in permanent injury. Eye contact with vapour or liquid will cause stinging, blurring tearing, severe pain and possible permanent eye damage and blindness.
Chronic Effects	Prolonged or repeated skin contact may cause defatting leading to dermatitis.
Carcinogenicity	Hydrochloric acid is classified by the IARC (International Agency for Research on Cancer) as a group 3 carcinogen. Group 3 - Not classifiable as to its carcinogenicity to humans Titanium oxide acid is classified by the IARC (International Agency for Research on Cancer) as a group 2B carcinogen. Group 2B - Possibly carcinogenic to humans
Acute Toxicity - Oral	LD50 (Rat): 900 mg/kg
Acute Toxicity - Inhalation	LC50 (Rat): 3124 ppm/1h LC50 (Mouse): 1108 ppm/1h

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.
Persistence / Degradability	Not available
Mobility	Not available
Bioaccumulative Potential	Not available
Environ. 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

Disposal Considerations	The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.
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14. TRANSPORT INFORMATION

Transport Information	This material is classified as Dangerous Goods Class 8 Corrosive Substances according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition). Class 8 Dangerous Goods are incompatible in a placard load with any of the following: - Class 1, Explosives - Division 4.3, Dangerous When Wet Substances - Division 5.1, Oxidising substances - Division 5.2, Organic Peroxides - Class 6, Toxic or Infectious Substances, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids - Class 7, Radioactive Substances and are incompatible with food and food packaging in any quantity. 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.
U.N. Number	1789
Proper Shipping Name	HYDROCHLORIC ACID
DG Class	8

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Hazchem Code 2R
Packaging Method 3.8.8RT8
Packing Group II
EPG Number 8A1
IERG Number 40

15. REGULATORY INFORMATION

Regulatory Information Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule S6

Hazard Category Corrosive

AICS (Australia) All components of this product are listed on the Australian Inventory of Chemical Substances (AICS) or exempted.

16. OTHER INFORMATION

Date of preparation or last revision of MSDS MSDS Created: November 2012
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