Infosafe No™	1CHC1	Issue Date : September 2017	RE-ISSUED by ACR

Product Name : **HYDROCHLORIC ACID 0.1 - <10.0%**

Classified as hazardous

1. Identification

GHS Product Identifier HYDROCHLORIC ACID 0.1 - <10.0%

Company Name AUSTRALIAN CHEMICAL REAGENTS (ACR) (ABN 19 008 264 211)

Address 38 - 50 Bedford Street Gillman
S.A. 5013 Australia

Telephone/Fax Number Tel: (08) 8440 2000
Fax: (08) 8440 2001

Recommended use of the chemical and restrictions on use Laboratory reagent.

Other Names

Name	Product Code
HYDROCHLORIC ACID 0.2N	0013
HYDROCHLORIC ACID 3.0% w/v	0471
HYDROCHLORIC ACID 0.15N	4248
HYDROCHLORIC ACID 0.1N	0012
HYDROCHLORIC ACID 0.25N	0014
HYDROCHLORIC ACID 0.5N	0015
HYDROCHLORIC ACID 0.6N	0893
HYDROCHLORIC ACID 0.8N	4079
HYDROCHLORIC ACID 1.0% v/v	1949
HYDROCHLORIC ACID 0.100M	3879
HYDROCHLORIC ACID 0.12 to 0.14M	5929
HYDROCHLORIC ACID 0.13 to 0.15M (A)	5930A
HYDROCHLORIC ACID 0.13 to 0.15M (B)	5930B
HYDROCHLORIC ACID 0.1315N	5397
HYDROCHLORIC ACID 0.161N (N/6.2)	3404
HYDROCHLORIC ACID 0.4N	2861
HYDROCHLORIC ACID 1.000N	0016
HYDROCHLORIC ACID 1.5N	4348
HYDROCHLORIC ACID 15% v/v	5611
HYDROCHLORIC ACID 16% v/v	5766
HYDROCHLORIC ACID 2% w/v	5359
HYDROCHLORIC ACID 2.5N	2538
HYDROCHLORIC ACID 25% v/v	0832
HYDROCHLORIC ACID 3% w/v	0471

Other Information EMERGENCY CONTACT NUMBER: +61 08 8440 2000
Business hours: 8:30am to 5:00pm, Monday to Friday.

Australian Chemical Reagents (ACR) does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Australian Chemical Reagents (ACR) with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Australian Chemical Reagents (ACR) is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture Corrosive to Metals: Category 1

Signal Word (s) WARNING

Hazard Statement (s) H290 May be corrosive to metals.

Pictogram (s) Corrosion

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Precautionary statement – Prevention	P234 Keep only in original container.
Precautionary statement – Response	P390 Absorb spillage to prevent material damage.
Precautionary statement – Storage	P406 Store in corrosive resistant container with a resistant inner liner.
Precautionary statement – Disposal	P501 Dispose of contents/container according to local, state and federal regulations.

3. Composition/information on ingredients

Chemical Characterization	Liquid
Information on Composition	Aqueous solution of the gas hydrogen chloride.

Ingredients

Name	CAS	Proportion	Hazard Symbol	Risk Phrase
Water	7732-18-5	>=90-99.9 %		
Hydrochloric acid	7647-01-0	>=0.1-9.9 %		

4. First-aid measures

Inhalation	Remove from exposure, rest and keep warm. If symptoms persist, obtain medical attention.
Ingestion	Rinse mouth thoroughly with water immediately. Give water to drink. DO NOT induce vomiting. Seek medical advice if effects persist.
Skin	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing If irritation occurs seek medical advice.
Eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention.
First Aid Facilities	Maintain eyewash fountain and drench facilities in work area.
Advice to Doctor	Treat symptomatically as for acids.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Suitable extinguishing media	Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.
Specific hazards arising from the chemical	Material does not burn. Runoff may pollute waterways.
Hazchem Code	2R

6. Accidental release measures

Spills & Disposal	Do NOT touch or walk through this product. Stop leak if safe to do so. Prevent entry into waterways, drains, or confined areas. Cover with DRY earth, sand or other compatible, non-combustible material followed by a plastic sheet to minimize spreading or contact with rain. Use clean, non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal. SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.
Personal Protection	Use personal protective equipment listed in Section 8.

7. Handling and storage

Precautions for Safe Handling	Avoid ingestion and inhalation of gas/fumes/vapour/spray mist. Avoid contact with eyes, on skin, or clothing. Use only with adequate ventilation.

Conditions for safe storage, including any incompatabilities	Keep container tightly closed. Keep container in a cool, well-ventilated area. Keep well closed and protected from direct sunlight and moisture. Do not store in metal containers.
Corrosiveness	Very corrosive to most metals. Rubber-lined steel, Haveg, Hastelby and tantalum, are the most commonly used corrosion-resistant materials of construction. Rubber, glass, plastic and ceramic ware are also resistant to corrosion.
Storage Temperatures	Store at room temperature (15 to 25 °C recommended).

8. Exposure controls/personal protection

Occupational exposure limit values

Name	STEL		TWA		
	mg/m3	ppm	mg/m3	ppm	Footnote
Hydrochloric acid			7.5	5	Hydrogen chloride Peak Limitation

Other Exposure Information	A time weighted average (TWA) has been established for Hydrogen chloride (Worksafe Aust) of 7.5 mg/m³ (Peak limitation), (5 ppm). The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.
Appropriate engineering controls	Provide sufficient ventilation to ensure that the working environment is below the TWA (time weighted average). Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flame proof exhaust ventilation system is required. Refer to AS 1940-The storage and handling of flammable and combustible liquids and AS 2430-Explosive gas atmospheres for further information concerning ventilation requirements.
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing vapours or mists. Select and use respirators in accordance with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. When mists or vapours exceed the exposure standards then the use of the following is recommended: Approved respirator with organic vapour and dust/mist filters. Filter capacity and respirator type depends on exposure levels.
Eye Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
Hand Protection	Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance. Recommendation: Excellent: NR latex, nitrile and neoprene. Supported Polyvinyl Chloride (PVC) gloves. Unsupported Butyl. Unsupported Viton.
Body Protection	Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and chemical properties

Form	Liquid
Appearance	Clear, colourless to light yellow liquid.
Odour	Odourless to slight, characteristic, irritating odour.
Melting Point	Approximately 0 °C (based on data for water); weighted average: -2.32 °C (3%); -18 °C (10%).
Boiling Point	Approximately 100 °C.
Solubility in Water	Miscible (soluble) in all proportions.
Solubility in Organic Solvents	Soluble in alcohols, diethyl ether and benzene; insoluble in hydrocarbons.
Specific Gravity	Approximately 1.
pH	For HCl solutions: 0.1 (1.0 N), 1.1 (0.1 N), 2.02 (0.01 N).
Vapour Pressure	Essentially the same as water; 0.527 Pa (10%).
Vapour Density (Air=1)	Essentially the same as water (0.62).

Evaporation Rate	Essentially the same as water (0.36) (BuAc=1).
Flammability	Non combustible material.

10. Stability and reactivity

Chemical Stability	Stable at normal temperatures, pressures and conditions of use or storage.
Conditions to Avoid	Metals and incompatible materials.
Incompatible Materials	Metals, bases (e.g. sodium hydroxide, amines), aldehydes, epoxides, reducing agents, oxidizing agents, permanganates, explosives, acetylides, borides, carbides, silicides, cyanides, sulfides and phosphide.

11. Toxicological Information

Ingestion	May cause burns to mouth, throat and stomach.
Inhalation	May be harmful if inhaled.
Skin	Liquid is slightly to highly irritating to skin and may cause burns.
Eye	Liquid is irritating to highly irritating to eyes and may cause scarring of the cornea (based on animal data). Vapour may cause eye irritation.
Carcinogenicity	Hydrochloric acid [7647-01-0] is evaluated in the IARC Monographs (Vol. 54; 1992) as Group 3: Not classifiable as to carcinogenicity to humans.
Mutagenicity	No human information is available. Questionable positive results reported in some short-term tests. Negative results in some in-vitro mammalian cell tests.

12. Ecological information

Ecotoxicity	Quantitative data on the ecological effect of this product are not available. The following applies to HCl in general: Harmful effect on aquatic organisms. Harmful effect due to pH shift. Does not cause biological oxygen deficit.
Environmental Protection	Do not allow to enter waters, waste water, or soil!

13. Disposal considerations

Disposal Considerations	Dispose of according to relevant local, state and federal government regulations.

14. Transport information

Transport Information	Dangerous Goods of Class 8 Corrosives are incompatible in a placard load with any of the following: - Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids and Class 7.
U.N. Number	1789
UN proper shipping name	HYDROCHLORIC ACID
Transport hazard class(es)	8
Hazchem Code	2R
Packaging Method	3.8.8RT8
Packing Group	III
IERG Number	40

15. Regulatory information

Poisons Schedule	S5

16. Other Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons No. 15', Commonwealth of Australia, November 2016. Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007. Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011.

Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010.
Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'.
Safe Work Australia, 'Hazardous Substances Information System, 2005'.
Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'.
Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995) 3rd Edition]'.

Contact Person/Point

Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT:
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