

Material Safety Data Sheet

Page: 1 of 5

Infosafe No.	1HH03	Issue Date : September 2006	ISSUED by CULBEAG
--------------	-------	-----------------------------	-------------------

Product Name : **HYDROCHLORIC ACID**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	HYDROCHLORIC ACID		
Product Code	HCL		
Company Name	CULBEAG HOLDINGS Pty Ltd (ABN 95 007 197 079)		
Address	19 Allied Drive Tullamarine VICTORIA 3043 Australia		
Emergency Tel.	03 9335 4400		
Telephone/Fax Number	Tel: 03 9335 4400 Fax: 03 9335 1750		
Email	sales@culbeag.com.au		
Recommended Use	Adjustment of pH, pickling of steel, metal cleaning, general chemical for manufacturing processes.		
Other Names	<u>Name</u>		<u>Product Code</u>
	Muriatic acid		
	Spirits of salts		

2. HAZARDS IDENTIFICATION

Hazard Classification	Classified as a DANGEROUS GOOD (1); UNNO 1789, Class 8 CORROSIVE Classified as a HAZARDOUS SUBSTANCE (2): CORROSIVE Causes burns. Causes respiratory irritation. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible)
------------------------------	--

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion	Hazard Symbol	Risk Phrase
	Water	7732-18-5	67 %		
	Hydrochloric Acid	7647-01-0	33 %		

4. FIRST AID MEASURES

Inhalation	Remove affected person(s) from contaminated area to fresh air promptly. If not breathing commence artificial respiration. If breathing is difficult oxygen can be given by a qualified person. Obtain medical attention promptly or transport to a hospital.
Ingestion	If swallowed, do NOT induce vomiting. Never give fluids or induce vomiting if patient is unconscious or is having convulsions. Rinse out mouth with water. Give a glass of water to drink. Obtain medical attention immediately.
Skin	If skin or hair contact occurs, remove contaminated clothing and wash skin thoroughly with flowing water for at least 15 minutes. Remove contaminated clothing and foot wear immediately while washing. Obtain medical attention promptly. Wash contaminated clothing before re-use.
Eye	If in eye(s), hold eyelid(s) apart and flush the eye(s) with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Consult a doctor promptly.
First Aid Facilities	Safety shower fitted with an eye wash unit or a fresh water supply for washing areas of skin contact, plus a readily accessible eye washing unit. Drinking quality water source.
Advice to Doctor	Product is a corrosive liquid. Treat symptomatically. Show this MSDS or the label of the product to the attending doctor.
Other Information	If an accident occurs or if you feel unwell obtain medical advice. Advice can be obtained from a Poison Information Centre (Telephone 13 1126) or doctor.

Material Safety Data Sheet

Page: 2 of 5

Infosafe No.	1HH03	Issue Date : September 2006	ISSUED by CULBEAG
--------------	-------	-----------------------------	-------------------

Product Name : **HYDROCHLORIC ACID**

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Use the medium most suitable to control and extinguish the major fire source in immediate area of the product.
Specific Methods	Wear standard fire fighting clothing and equipment. Fight fire in the manner appropriate for the major source of fire. Keep intact containers of acid cool with water spray. Remove intact containers from the path of the fire if this operation can be performed safely.
Specific Hazards	None. Product will not burn. Containers of acid may burst when exposed to fire conditions, releasing vapour of hydrogen chloride and a spray and/or mist of hydrochloric acid. Acid reacts with most metals to generate hydrogen gas which is extremely flammable.
Hazchem Code	2R

6. ACCIDENTAL RELEASE MEASURES

Methods and Materials for Containment and Clean Up Procedures	Wear appropriate protective clothing. Ventilate area of leak or spill. Contain spilled acid with soil or sand. Prevent entry into sewers, drains or water courses. Neutralise the acid with soda ash, slaked lime or crushed limestone. Collect neutralised wastes for disposal. Wash residual materials from hard surfaces with water.
--	---

7. HANDLING AND STORAGE

Precautions for Safe Handling	When diluting, small quantities of acid should always be added slowly to water while stirring gently. Do NOT use warm or hot water. Neutralise residual acid in an 'empty' container with a solution of soda ash and dispose of responsibly. Triple wash empty containers thoroughly with water before disposal.
Conditions for Safe Storage	Product is classified as a dangerous good, Class 8 - CORROSIVE for storage. Product should be stored and handled in accord with the statutory regulations for the Storage and Handling of Dangerous Goods. Store in a cool dry location with acid resistant floors. Keep lid of container closed at all times when not in use. Store away from alkalis, chlorinating compounds and cyanide compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	National Exposure Standard(3) declared by NOHSC [4] for the workplace environment for; Hydrogen chloride: 5 ppm, TWA, Peak limitation; where Where, TWA - means the Time Weighted Average concentration of a particular substance determined over a normal 8-hour working period for a 5-day working week. Peak limitation means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.
Engineering Controls	Local exhaust ventilation should be used to maintain the airborne concentration below the National Exposure Standard [3].
Respiratory Protection	Personal respiratory protection is recommended as an added control particularly where workplace atmospheric concentrations of hydrogen chloride may exceed the National Exposure Standard for the workplace. Select and fit an approved air-purifying respirator according to AS/NZS 1715 [5] and AS/NZS 1716 [6].
Eye Protection	Wear approved chemical goggles. Eye protection complying with AS/NZS 1337 [7] should be worn to protect against splashes/droplets of hydrochloric acid entering the eye. Guidance to recommended practices for eye protection in the industrial environment is provided in AS1336 [8]. Ensure that an eye wash facility is readily available in the work area.
Body Protection	Wear long-sleeved overalls. Use gloves, boots and aprons suitable for the proposed operations. PVC, rubber or neoprene are suggested protective materials for this equipment. Remove contaminated clothing promptly. Wash contaminated clothing before re-use.
Hygiene Measures	It is a good work practice to wash hands, arms and face before eating,

Material Safety Data Sheet

Page: 3 of 5

Infosafe No.	1HH03	Issue Date : September 2006	ISSUED by CULBEAG
--------------	-------	-----------------------------	-------------------

Product Name : **HYDROCHLORIC ACID**

drinking or using toilet facilities and at the end of each work period.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear liquid. Vapour fumes in air.
Boiling Point	100°C
Solubility in Water	Soluble in all proportions.
Specific Gravity	1.15 - 1.17 @ 25°C
Vapour Pressure	15 mm Hg for 30% w/w acid; approx 50 mm Hg for 33%w/w acid, @ 25°C
Vapour Density (Air=1)	>1 relative to air = 1
Flash Point	Not applicable
Flammability	Hydrochloric acid is not capable of burning. Vapour/air mixtures are not flammable.
Flammable Limits - Lower	Not applicable
Flammable Limits - Upper	Not applicable

10. STABILITY AND REACTIVITY

Stability and Reactivity	Hydrochloric acid is stable.
Incompatible Materials	Incompatible with cyanides, sulphites, sulphides and formaldehyde. Hydrogen chloride vapour reacts with ammonia vapour to form ammonium chloride fume.
Hazardous Reactions	Hydrochloric acid will react with most metals to generate hydrogen gas which is extremely flammable. Reacts with alkalies to form a salt and water. Also reacts with many oxidising agents such as peroxides, manganese and lead dioxides, permanganates, chromates and dichromates, nitrates, chlorates and perchlorates. Incompatible with cyanides, sulphites, sulphides and formaldehyde. Hydrogen chloride vapour reacts with ammonia vapour to form ammonium chloride fume.

11. TOXICOLOGICAL INFORMATION

Inhalation	Vapour of the acid is a severe irritant of the upper respiratory tract. Cause coughing, choking and inflammation of the nose, throat and the upper respiratory tract. Effects are sufficiently severe to encourage prompt withdrawal of the affected person from the contaminated environment. Initial warning properties are good as most people can detect the odour at a concentration in air of about 5 ppm.
Ingestion	Corrosive liquid. Causes burns. Swallowing will cause pain and severe burns to the mouth, throat and digestive tract if swallowed. May cause difficulty to swallow, nausea, vomiting and diarrhea. Swallowing may be fatal.
Skin	Corrosive liquid. Causes burns. Causes redness, pain and severe burns. Will cause necrosis (death of tissue).
Eye	Corrosive liquid. Causes burns. Risk of serious damage to the eyes. Contact may result in permanent damage to the eye(s) and may result in total loss of vision. Vapour is irritating and will cause irritation of the eyes.
Chronic Effects	Erosion of the teeth may occur due to prolonged exposure or frequently repeated exposure to high concentrations of vapour.

12. ECOLOGICAL INFORMATION

Environ. Protection	Keep the product out of sewers, drains and water courses. Will cause harm to aquatic organisms.
----------------------------	---

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Dispose of wastes in an approved waste disposal system in accordance with
-----------------------	---

Material Safety Data Sheet

Page: 4 of 5

Infosafe No.	1HH03	Issue Date : September 2006	ISSUED by CULBEAG
--------------	-------	-----------------------------	-------------------

Product Name : **HYDROCHLORIC ACID**

Container Disposal State or Territorial waste disposal regulations.
Neutralise residual acid in empty container with dilute solution of sodium bicarbonate or soda ash. Triple wash container with water. Do not use container for any other purpose.

14. TRANSPORT INFORMATION

Transport Information Product is a dangerous good, Class 8 - CORROSIVE for transport by road, rail sea or air. Road and rail transport in Australia should be in accord with the current edition of the Australian Dangerous Goods Code.

U.N. Number 1789

Proper Shipping Name HYDROCHLORIC ACID

DG Class 8

Hazchem Code 2R

Packaging Method 3.8.8RT8

Packing Group II

EPG Number 8A1

IERG Number 40

15. REGULATORY INFORMATION

Regulatory Information Product is classified as a hazardous substance according to the criteria of NOHSC(4).
Hazard category: CORROSIVE
For labelling of workplace substances [9];
Risk phrase are;
R34 - Cause severe burns
R37 - Cause respiratory irritation.
Safety phrases are;
(S1/2- Keep locked up and out of the reach of children.)
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S45 - In case of accident or if you fell unwell, seek medical advice immediately (show the label whenever possible).
* This phrase is used when there is the potential for public use or exposure particularly children.

Poisons Schedule S6

Packaging & Labelling If product is repackaged for the consumer market, labelling and packaging should be in accord with the current edition of the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP)[10].

AICS (Australia) The principal ingredients are included in the Australian Inventory of Chemical Substances [11].

16. OTHER INFORMATION

Date of preparation or last revision of MSDS Revised 19 September 2006. Revised hazardous substance identification statement. Revised 1st Aid statements for swallowed, skin, eyes, first aid facilities and other information. Also revised health hazard information for swallowing, skin and eyes in Section 11.

Contact Person/Point BUSINESS HOURS: Product Information Officer, (03) 9335 4400
This MSDS summarises our best knowledge of the health and safety hazard information of this product and how to safely handle and use the product in the workplace. Each user must review this MSDS in the context of how the product will be handled and used in the workplace. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.
Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

Material Safety Data Sheet

Page: 5 of 5

Infosafe No.	1HH03	Issue Date : September 2006	ISSUED by CULBEAG
--------------	-------	-----------------------------	-------------------

Product Name : **HYDROCHLORIC ACID**

Literature References

- [1] Australian Dangerous Goods Code, 6th Edition, 1998.
 - [2] List of Designated Hazardous Substances section of NOHSC Hazardous Substances Information System (HSIS), August 2005 (www.nohsc.gov.au/applications/hsis) and the Approved Criteria for Classifying a Hazardous Substance, 3rd Edition, October 2004. (www.nohsc.gov.au/pdf/Standards)
 - [3] Exposure Standards for Atmospheric Contaminants in the Occupational Environment in exposure standards section of HSIS, as amended. (www.nohsc.gov.au/www.nohsc.gov.au/applications/hsis)
 - [4] NOHSC = National Occupational Health and Safety Commission now known as the Australian Safety and Compensation Commission.
 - [5] AS1716: Respiratory protective devices.
 - [6] AS1715: Selection, use and maintenance of respiratory protective devices.
 - [7] AS/NZS1337: Eye protectors for the industrial applications.
 - [8] AS1336: Recommended practices for eye protection in the industrial environment.
 - [9] National Code of Practice for Labelling of Workplace Substances, 1st Edition [NOHSC:2012(1994)]
 - [10] SUSDP = Standard for the Uniform Scheduling of Drugs and Poisons, NHMRC
 - [11] Australian Inventory of Chemical Substances maintained by National Industrial Chemicals Notification and Assessment Scheme. (www.nicnas.gov.au).
- ...End Of MSDS...