

**PRODUCT NAME HYDROGEN CHLORIDE**

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

**Supplier Name** COREGAS PTY LTD  
**Address** 66 Loftus Rd, Yennora, NSW, AUSTRALIA, 2161  
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**Fax** (02) 9794 2221  
**Emergency** 1300 657 070  
**Email** info@coregas.com  
**Web Site** http://www.coregas.com/  
**Synonym(s)** 30831002 - MSDS NUMBER  
**Use(s)** INDUSTRIAL APPLICATIONS  
**MSDS Date** 30 May 2008

**2. HAZARDS IDENTIFICATION**

**CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA**

**RISK PHRASES**

R23 Toxic by inhalation.  
R35 Causes severe burns.

**SAFETY PHRASES**

S1/2 Keep locked up and out of reach of children.  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).  
S9 Keep container in a well ventilated place.

**CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**

**UN No.** 1050                      **DG Class** 2.3                      **Subsidiary Risk(s)** 8  
**Pkg Group** None Allocated              **Hazchem Code** 2RE                      **EPG** 2B8

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Ingredient	Formula	CAS No.	Content
HYDROGEN CHLORIDE	Cl-H	7647-01-0	100%

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## 4. FIRST AID MEASURES

<b>Eye</b>	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poison Information Centre or a doctor, or for at least 15 minutes.
<b>Inhalation</b>	If inhaled, remove from contaminated area. To protect rescuer, use a Full-face Type B (Inorganic and acid gas) respirator or an Air-line respirator. Apply artificial respiration if not breathing.
<b>Skin</b>	Cold burns: Remove contaminated clothing and gently flush affected areas with warm water (30°C) for 15 minutes. Apply sterile dressing and treat as for a thermal burn. For large burns, immerse in warm water for 15 minutes. DO NOT apply any form of direct heat. Seek immediate medical attention.
<b>Ingestion</b>	For advice, contact a Poisons Information Centre or a doctor (at once). If swallowed, do not induce vomiting.
<b>Advice to Doctor</b>	Management of pulmonary oedema, cold and chemical burns.

## 5. FIRE FIGHTING MEASURES

<b>Flammability</b>	Non flammable. May evolve highly toxic gases (chlorides, hydrogen chloride) when heated to decomposition. May evolve highly flammable - explosive hydrogen gas when in contact with metals.
<b>Fire and Explosion</b>	Non flammable. Temperatures in a fire may cause cylinders to rupture. Call fire brigade. Cool cylinders exposed to fire by applying water from a protected location. Do not approach cylinders suspected of being hot. Remove cool cylinders from the path of the fire. Evacuate the area if unable to keep cylinders cool.
<b>Extinguishing</b>	Stop flow of gas if safe to do so. If safe, extinguish fire using dry chemical. Cool cylinders with water spray from protected area. Contact manufacturer for further advice.
<b>Hazchem Code</b>	2RE

## 6. ACCIDENTAL RELEASE MEASURES

<b>Spillage</b>	If the cylinder is leaking, eliminate all potential ignition sources and evacuate area of personnel. Inform manufacturer/supplier of leak. Wear appropriate PPE and carefully move it to a well ventilated remote area, then allow to discharge. Do not attempt to repair leaking valve or cylinder safety devices.
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## 7. STORAGE AND HANDLING

<b>Storage</b>	Do not store near incompatible materials. Cylinders should be stored below 45°C in a secure area and upright to prevented cylinders from falling. Cylinders should also be stored in a dry, well ventilated area constructed of non-combustible material with firm level floor (preferably concrete), away from areas of heavy traffic and emergency exits.
<b>Handling</b>	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

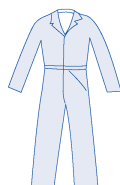
## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Stds	Ingredient	Reference	TWA		STEL	
			ppm	mg/m3	ppm	mg/m3
	Hydrogen chloride	NOHSC (AUS)	5.0	7.5	--	--

**Biological Limits** No biological limit allocated.

**Engineering Controls** Do not inhale vapours. Use in well ventilated areas. In poorly ventilated areas, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

**PPE** Wear a Type B (Inorganic gases and vapours) Respirator, safety boots, rubber gloves, coveralls and safety glasses. Only experienced and trained person should use this product. At high vapour levels, wear an Air-line respirator or self Contained Breathing Apparatus (SCBA).



## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance	COLOURLESS GAS	Solubility (water)	SOLUBLE
Odour	PUNGENT ODOUR	Specific Gravity	NOT AVAILABLE
pH	NOT AVAILABLE	% Volatiles	NOT AVAILABLE
Vapour Pressure	NOT AVAILABLE	Flammability	NON FLAMMABLE
Vapour Density	NOT AVAILABLE	Flash Point	NOT RELEVANT
Boiling Point	85°C	Upper Explosion Limit	NOT RELEVANT
Melting Point	NOT AVAILABLE	Lower Explosion Limit	NOT RELEVANT
Evaporation Rate	NOT AVAILABLE	Autoignition Temperature	NOT AVAILABLE

## 10. STABILITY AND REACTIVITY

**Chemical Stability** Stable under recommended conditions of storage.

**Conditions to Avoid** Avoid heat, sparks, open flames and other ignition sources.

**Material to Avoid** Strongly incompatible with oxidising agents, alcohols, alkalis, most metals (e.g. aluminium), strong acids, dinitroaniline, cyanides, sulphides and heat sources. Corrodes most materials when moist.

**Decomposition** May evolve highly toxic gases (chlorides, hydrogen chloride) when heated to decomposition.

**Hazardous Reactions** This product will react with water to produce hydrochloric acid.

## 11. TOXICOLOGICAL INFORMATION

**Health Hazard Summary** Highly corrosive. Use safe work practices to avoid ALL exposure as severe burns to the eye, skin, mucous membranes and lungs may result. CAUTION: effects may be delayed with severe and potentially fatal results.

**Eye** Highly corrosive. Gas and liquid are extremely irritating and corrosive. Mild concentrations of vapour will cause irritation, higher concentrations may cause burns, inflammation and swelling of the eyes with possible loss of vision. Persons with potential exposure should not wear contact lenses.

**Inhalation** Corrosive. Causes irritation of upper respiratory tract at 35 vppm after short exposure. More severe exposures result in pulmonary oedema and often laryngeal spasm.

**Skin** Corrosive. Severe irritant. Low temperature evaporating liquid can cause cold burns.

**Ingestion** Ingestion is considered unlikely due to product form. However, ingestion of liquid may result in burns to the mouth and throat.

**Toxicity Data** No LD50 data available for this product.

## 12. ECOLOGICAL INFORMATION

**Environment** Limited ecotoxicity data was available for this product at the time this report was prepared. Ensure appropriate measures are taken to prevent this product from entering the environment.

**Ecotoxicity** Toxic to aquatic organisms.

**Persistence / Degradability** This product is not readily biodegradable.

**Mobility** Miscible in water, and likely to be transported considerable distances in soil.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal** Cylinders should be returned to the manufacturer or supplier for disposal of contents.

**Legislation** Dispose of in accordance with relevant local legislation.

## 14. TRANSPORT INFORMATION

**Transport** Ensure cylinder is separated from driver.



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## CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

Shipping Name	HYDROGEN CHLORIDE, ANHYDROUS				
UN No.	1050	DG Class	2.3	Subsidiary Risk(s)	8
Pkg Group	None Allocated	Hazchem Code	2RE	EPG	2B8

### IATA

Shipping Name	HYDROGEN CHLORIDE, ANHYDROUS				
UN No.	1050	DG Class	2.3	Subsidiary Risk(s)	8
Pkg Group	None Allocated				

### IMDG

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Pkg Group	None Allocated				

## 15. REGULATORY INFORMATION

**Poison Schedule** Classified as a Schedule 6 (S6) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

**AICS** All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

## 16. OTHER INFORMATION

**Additional Information** APPLICATION METHOD: Gas withdrawal: regulator of suitable pressure and flow rating fitted to cylinder or manifold with low pressure gas distribution to equipment.

### ABBREVIATIONS:

ADB - Air-Dry Basis.

BEI - Biological Exposure Indice(s)

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

CNS - Central Nervous System.

EINECS - European INventory of Existing Commercial chemical Substances.

IARC - International Agency for Research on Cancer.

M - moles per litre, a unit of concentration.

mg/m<sup>3</sup> - Milligrams per cubic metre.

NOS - Not Otherwise Specified.

NTP - National Toxicology Program.

OSHA - Occupational Safety and Health Administration.

pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).

ppm - Parts Per Million.

RTECS - Registry of Toxic Effects of Chemical Substances.

TWA/ES - Time Weighted Average or Exposure Standard.

### HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

### PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**Report Status** This document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Material Safety Data Sheet ('MSDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

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While RMT has taken all due care to include accurate and up-to-date information in this MSDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this MSDS.

**Prepared By**

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**End of Report**