

msds

SAFETY DATA SHEET

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SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

PRODUCT (MATERIAL) NAME	HYDROCHLORIC ACID		
OTHER NAMES	MURIATIC ACID; SPIRITS OF SALTS		
RECOMMENDED USE	General chemical, for pH adjustment in swimming pools.		
SUPPLIER NAME/ADDRESS	Focus Products Pty Ltd 35 Moreton Street Heathwood Qld 4110 PO Box131 Carole Park QLD 4300		
TELEPHONE NO.	1800 42 55 66		
EMERGENCY PHONE NUMBER	0411 623 619 (A/H)	Hours: 0800-1700	Monday-Friday

SECTION 2: HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION	Hazardous according to criteria of SAFework Australia. Dangerous according to the criteria of ADG Code C: Corrosive		
RISK PHRASE(S)	R 34 Causes burns. R 37 Irritating to respiratory system.		
SAFETY PHRASE(S)	S1/2: Keep locked up and out of reach of children. S26: In case of contact eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre. S45: In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre 131126 immediately (show the label where possible).		

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURE		
Chemical identity of ingredients	Proportion of ingredients	CAS Number(s) for ingredients
Hydrogen Chloride Gas	34.5% m/v	[7647-01-0]
Water	30-60%	[7732-18-5]

SECTION 4 FIRST AID MEASURES

Swallowed:	For advice, contact a Poisons Information Centre (Phone Australia 131126; New Zealand 0800 764 766) or a doctor. If swallowed, do NOT induce vomiting. Thoroughly rinse the mouth with water. Give plenty of water, or milk, seek medical attention immediately. Contact poisons information centre.
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. Transport to hospital or medical centre.
Skin:	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering occurs seek medical advice
Inhalation:	Remove victim to ventilated area, avoid becoming a casualty. Apply artificial respiration if not breathing. In the event of a cardiac arrest apply external cardiac

massage. Seek medical attention.
ADVICE TO DOCTOR. Treat symptomatically and as for exposure to corrosive acids.

SECTION 5 FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA Carbon Dioxide, Water fog.
 HAZARDS FROM COMBUSTION PRODUCTS Combustion will release toxic gasses.
 SPECIAL PROTECTIVE PRECAUTIONS AND EQUIPMENT FOR FIRE FIGHTERS Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of decomposition Hydrogen chloride (HCl), Hydrogen gas (H₂) Chlorine gas (Cl₂) evolved.
Additional information Non flammable but flammable and explosive hydrogen gas may be formed on contact with metals. If involved in a fire, highly toxic fumes will be evolved. If safe to do so remove containers from path of the fire. Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of decomposition
Hazchem Code 2R

SECTION 6 ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES Extinguish any source of flame. Evacuate area of all unprotected personnel. Wear full protective gear, including impervious footwear, goggles and respiratory mask. Increase ventilation to area or work up wind of spill. Contain spill with earth or sand. Prevent liquid from entering drains, sewers, waterways. Dilute with water or carefully neutralise with soda ash or slaked lime. All water should be added by hose from a safe distance, as reaction is exothermic (gives off heat) and will increase release of vapour. Wash to drain with excess water. For large spills notify emergency services.
 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP Refer to state land waste management authority. After dilution or careful neutralisation, approved liquid wasteland fill site should be suitable.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING Wear protective goggles and rubber gloves to prevent eye and skin contamination.
 CONDITIONS FOR SAFE STORAGE Store as provided for in the appropriate state regulations relating to storage and handling of dangerous goods. Keep containers tightly sealed when not in use. Store in a well-ventilated place and out of direct sunlight. Check area regularly for spills.
 INCOMPATIBILITIES (Specific materials to avoid) not to be loaded with dangerous when wet substances (Class 4.3), Oxidising agents (Class 5) , Cyanides (Class 6) or foodstuffs.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

NATIONAL EXPOSURE STANDARDS No value assigned for this specific material by the National Health & Medical Research Council. However , TLV Hydrogen Chloride gas: 5ppm (7 mg/m³) ceiling value. Detectable odour at < 5ppm. Respiratory and mucous membrane irritant > 35ppm.
BIOLOGICAL LIMIT VALUES
ENGINEERING CONTROLS Always keep away from metals, handling only with plastics. Polypropylene, polyethylene or unplastercised PVC are most suitable engineering materials for direct contact. Avoid breathing vapour and inhaling mists or aerosols. Use in well-ventilated area. Control airborne contamination below exposure guidelines using local exhaust at >20m³/min.
PERSONAL PROTECTION: Avoid unnecessary contact as good work practice. Wash contaminated clothing and protective equipment before storing and re-use. Wash hands before eating, smoking or using the toilet.
RESPIRATORY PROTECTION If inhalation risk exists wear acid mist respirator. Use judgment. For assistance in selecting suitable equipment consult AS/NZ1715.
EYE PROTECTION Eye protective measures are normally necessary(chemical goggles) and are suggested when using this product. Consult AS1336 and AS/NZ1337
PROTECTIVE GLOVES Rubber, PVC or other protective gloves are necessary, and desirable, especially if product is being used frequently or for lengthy periods. Consult AS2161 for guidance.
CLOTHING Clean overalls should be worn, preferably with an apron. Consult AS2919 for clothing guidance.
SAFETY FOOTWEAR Wearing safety boots is advisory. Consult AS/NZ 2210 for advice on Occupational Protective Footwear.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<u>Appearance:</u>	Clear, colourless to slightly yellow fuming liquid. Hygroscopic (absorbs water.) Pungent odour.
<u>Flammability:</u>	Product is not flammable
<u>Melting Point:</u>	Not applicable
<u>Boiling Point:</u>	100° C
<u>Flash Point:</u>	NA
<u>Vapour Pressure:</u>	0.13 kpa @ 739° C
<u>Volatiles:</u>	100%
<u>Vapour Density</u>	1.26
<u>pH 1% aqueous solution</u>	< 1.0
<u>Specific Gravity:</u>	1.14-1.15
<u>Solubility in water</u>	Soluble in water (exothermic- releases heat)

SECTION 10 STABILITY AND REACTIVITY

Chemical stability	Stable
Conditions to avoid	Do not mix with oxidising agents (Class5), strong alkalis (Class8) or Cyanides (Class6)
Incompatible materials	(Specific materials to avoid) not to be loaded with dangerous when wet substances (Class 4.3), Oxidising agents (Class 5) , Cyanides (Class 6) or foodstuffs.
Hazardous decomposition products	Combustion will release toxic gasses.
Hazardous reactions	Oxidising agents (Class 5)

SECTION 11 TOXICOLOGICAL INFORMATION

Hydrochloric acid	No toxicity data is available for this material.
SYMPTOMS OF EXPOSURE	Considered to be harmful by all exposure routes. Contamination of eyes can result in permanent injury.
Swallowed:	Vapour is irritant to mucous membranes and respiratory tract. May result in dental discolouration and erosion and ulceration of the nose and mouth.
Eye:	Highly corrosive to skin and eyes. Vapour is irritant to eyes, mucous membranes and respiratory tract.
Skin:	May cause skin burns.
Inhalation:	Vapour is irritant to mucous membranes and respiratory tract.
ACUTE	Exposure to high concentrations of the vapour or the acid as a mist may lead to lung damage including pulmonary oedema and emphysema. May result in dental discolouration and erosion and ulceration of the nose and mouth.
DELAYED	
hydrogen chloride (gas)	LC ₅₀ (rat) 3124 ppm (1hour) Lowest Lethal Concentration LC (human) : 1300ppm (30min)

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY	Avoid contaminating waterways.
PERSISTENCE AND DEGRADABILITY	No ecological information is available for this material.
MOBILITY	Water dilutable
<i>ENVIRONMENTAL FATE (EXPOSURE)</i>	
<i>BIOACCUMULATIVE POTENTIAL</i>	

SECTION 13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS AND CONTAINERS	Refer to State Land Waste Management Authority. Empty containers must be decontaminated. Normally suitable for disposal at approved land waste site.
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SPECIAL PRECAUTIONS FOR LANDFILL OR
INCINERATION

SECTION 14 TRANSPORT INFORMATION

UN NUMBER	1789
UN PROPER SHIPPING NAME	HYDROCHLORIC ACID (>25%)
CLASS AND SUBSIDIARY RISK	8
PACKING GROUP	II
SPECIAL PRECAUTIONS FOR USER	

HAZCHEM CODE

2R

SECTION 15 REGULATORY INFORMATION

Poison Schedule 6
 OHS **Considered A Hazard**
 Environmental **Considered A Hazard**

*Additional information**Additional national and/or international regulatory information.***SECTION 16 OTHER INFORMATION**

Date of preparation or last revision of the MSDS 4 December 2014
 Prepared by Glenn Bowring B App Sc (App Chem)

*Additional information**Key/legend to abbreviations and acronyms used in the MSDS.*

ADG Australian Code for the Transport of Dangerous Goods by Road and Rail
ACGIH American Conference of Governmental Industrial Hygienists
ASCC Australian Safety and Compensation Council
Carcinogen Category Number 1. Established human carcinogen
 2. Probably human carcinogen
 3. Substances suspected of having carcinogenic potential
Code AICS Australian Inventory of Chemical Substances
CAS number Chemical Abstracts Service Registry Number
EPG Emergency Procedure Guide (superseded by IERG)
Hazchem Code Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IERG HB 76-2004 Dangerous goods - Initial Emergency Response Guide
IMDG International Maritime Dangerous Goods. A uniform code for transport of dangerous goods at sea.
LEL lower flammable (explosive) limits in air;
LD₅₀ Lethal Dose sufficient to kill 50% of test population
NIOSH National Institute for Occupational Safety and Health The United States federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness.
NOAEL No Observed Adverse Effect Level
NOEL No Observable Effect Level
NOHSC National Occupational Health and Safety Commission
NTP National Toxicology Program (USA)
PEL Permissible Exposure Limit
RTECS Registry of Toxic Effects of Chemical Substances (Symyx Technologies)
TCL_o Toxic Concentration Low
TD_{Lo} Toxic Dose Low : lowest dosage per unit of bodyweight (typically stated in milligrams per kilogram) of a substance known to have produced signs of toxicity in a particular animal species.
TLV Threshold Limit Value (ACGIH): The time weighted average used to describe exposure which is harmless to most of the population when exposed 8 hours per day, 40 hours per week.
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.
 These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
SAFEWORK Independent statutory agency with primary responsibility to improve occupational health and safety and workers' compensation arrangements across Australia.
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.
SUSDP Standard for the Uniform Scheduling of Drugs & Poisons
SUSMP Standard for the Uniform Scheduling of Medicines & Poisons
UEL upper flammable (explosive) limits in air;
UN Number United Nations Number
Literature references.
Sources for data. Material Safety Data Sheets from Suppliers
 Hazardous Substances Information System (HSIS)– ASCC Australia (on-line)
 ESIS (European Chemical Substance Information System)
 ADG Code 7th Edition
 SUSMP N° 4

DISCLAIMER:

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Focus Products Pty Ltd. 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. Focus Products Pty Ltd however makes no warranty whatsoever, expressed, implied or of merchantability regarding the accuracy of such data or the results to be obtained from the use thereof and assumes no responsibility for injury to buyer or third persons or for any damage to property. Buyer assumes all risks.