



Consolidated Alloys

A Division of C.A. Group Australasia Pty. Ltd.
ABN 83 005 084 097 ACN 005 084 097

Head Office : 32 Industrial Avenue Thomastown, Victoria 3074
AUSTRALIA
Mail : PO Box 199, Reservoir, Victoria 3073
AUSTRALIA
Telephone : (03) 9359 5811
Facsimile : (03) 9359 4076
E-mail : info@cagroup.com.au

Reference No. : F202
Product Name : Hydrochloric Acid

MATERIAL SAFETY DATA SHEET

Section 1 : IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **HYDROCHLORIC ACID**
Other Names: Spirits of Salts, Muriatic Acid.
Recommended Use: Metal Pickle, Soldering Flux.

Supplier's / Manufacturer's

Name: Consolidated Alloys
Address: 32 Industrial Avenue, Thomastown, Victoria 3074, AUSTRALIA
Telephone No.: (03) 9359 5811
Emergency No.: (03) 9359 5811 – Business Hours only
0439 062 480 – After Hours (24Hrs)
Poisons Information Centre
Victoria
Telephone No.: 131126

Section 2 : HAZARD IDENTIFICATION

Hazard Classification according to criteria of Worksafe Australia.

Risk Phrase(s)
R35 Causes severe burns.
R36/37/38 Irritating to eyes, respiratory system and skin.
R41 Risk of serious damage to eyes.

Safety Phrase(s)
S7/9 Keep container tightly closed and in a well ventilated place.
S25 Avoid contact with the eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre.



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Section 3 : COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Entity	Proportion	CAS Number
Hydrochloric Acid	31%	7647-01-0

Section 4 : FIRST AID MEASURES

Description of necessary measures according to route of exposure.

Ingestion:	If swallowed, do not induce vomiting. Give a glass of water to effectively dilute the product. Contact the Poisons Information Centre on 13 11 26 or a doctor. ** SHOW THIS MATERIAL SAFETY DATA SHEET TO A DOCTOR**
Eye:	If in eyes, hold eyelids apart and flush the eye continuously with running water for at least 15 minutes and seek medical assistance.
Skin:	If skin or hair contact occurs remove or cut away contaminated clothing and wash skin and hair thoroughly with running water.
Inhalation:	Leave area of exposure immediately. If assisting and/or removing a victim avoid becoming a casualty, wear a full face respirator. Seek medical assistance if the effects persist.
Medical Attention and Special Treatment:	Treat symptomatically and as for exposure to corrosive acids.

Additional information

Aggravated Medical Conditions Caused by Exposure: Not expected to cause chronic health effects.



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Section 5 : FIRE FIGHTING MEASURES

Extinguishing Media: Water spray, Foam, Carbon Dioxide, Dry Chemical Powder or BCF.

Hazards from Combustion Products: Whilst the product itself is not Flammable, contact with most common metals can liberate Hydrogen gas that is toxic and corrosive.

Special Protective Equipment: Fire fighters should wear self contained breathing apparatus to minimise risk of exposure to vapour or products of combustion.

Additional information The product is water based and is fully soluble in water. It is a strong acid. The pH of 1% solution is less than 2.0. Use good industrial hygiene.

HAZCHEM CODE: 2R

Section 6 : ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Personnel involved in the clean up should wear full protective clothing.

Methods and Materials for Containment and Clean Up Procedures

Small Spills / Leaks: Dilute with plenty of water or cover with sodium bicarbonate.

Large Spills / Leaks: Spills should be neutralised with soda ash or slaked lime. Absorb spillage with dry earth, sand or a similar material, shovel up and dispose of in an area approved by local authority by-laws. Residues may be safely flushed into drains if permitted by your local waste management authority.
DO NOT INCINERATE. The by-product can be hazardous.

For Personal Protective Equipment (PPE) - refer to Section 8 of this MSDS (if required)



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Section 7 : HANDLING AND STORAGE

Precautions for Safe Handling: Always wear protective clothing when handling and wash hands after use.

Conditions for Safe Storage: Store and handle in accordance with the requirements of the Dangerous Goods Regulations for Class 8 Substances. This material is a Subsidiary risk 6.1(a), Toxic and must be packaged and labelled in accordance with the Drugs, Poisons and Controlled Substances Act and Regulations and Transportation of Dangerous Goods Code.

Section 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards – as regulated by: Worksafe Australia

Chemical Name ES – TWA

Hydrochloric Acid 7.5 mg/m³

Biological Limit Values No data available.

Engineering Controls: Local exhaust ventilation is required indoors. Ensure adequate ventilation so as not to exceed TWA levels.

Personal Protective Equipment (PPE)

Eye / Face Protection: Wear chemical goggles or full face shield.

Skin Protection: Wear PVC or Rubber gloves. It recommended that you wear a waterproof apron and safety boots.

Respiratory Protection: Avoid breathing vapours.



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Section 9 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, fuming liquid with a pungent acidic odour.
Colour:	Colourless
Odour:	Pungent odour.
Vapour Pressure:	17.8 mm Hg @ 20oC
Vapour Density:	No information available
Boiling Point / Range:	108.6oC
Freezing / Melting Point:	-46.2oC
Solubility in Water:	Miscible in water.
Specific Gravity / Density:	Approx. 1.16
Flash Point:	N/A
pH:	< 1

For Flammable Limits (as a percentage volume in air)

Lower Explosion Limit :	N/A
Upper Explosion Limit :	N/A
Ignition Temperature:	There is no fire hazard from this product or any of its ingredients.
Specific Heat Value :	N/A
Particle Size:	N/A
Volatile Organic Compounds (VOC) Content	N/A
Evaporation Rate :	N/A
Viscosity :	N/A
Percent Volatile :	N/A
Octanol/Water partition coefficient :	N/A
Saturated Vapour Concentration :	N/A
Additional Characteristics	N/A
Flame Propagation/Burning Rate of Solid Materials :	N/A
Properties of material that may initiate or contribute to fire intensity :	N/A
Potential for Dust Explosion :	N/A
Reactions that Release Flammable Gases :	N/A
Fast or Intensely Burning Characteristics :	N/A
Non-Flammables that could contribute unusual hazards to a fire :	N/A
Release of invisible flammable vapour and gases :	Nil
Decomposition Temperature :	N/A

Additional Information

Molecular Weight :	36.45
Solubility :	Miscible in water.



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Section 10 : STABILITY AND REACTIVITY

Chemical Stability: Product is stable under normal conditions of use and storage.
Conditions to Avoid: Avoid contact with common metals.
Incompatible Materials: Strongly incompatible with oxidising agents, alcohols, alkalis (eg sodium hydroxide), most metals (eg aluminium), strong acids (eg sulphuric acid), dinitroaniline, cyanides, sulphides and heat sources.
Hazardous Decomposition Products: May evolve highly toxic gases (chlorides, hydrogen chloride) when heated to decomposition.
Hazardous Reactions: May evolve highly flammable – explosive hydrogen gas when in contact with metals.

Section 11 : TOXICOLOGICAL INFORMATION

Toxicity Data: No data available.
Ingestion: Highly corrosive. Ingestion may result in burns to the mouth and throat, nausea, vomiting and abdominal pain. Large doses may result in ulceration, unconsciousness, convulsions and death.
Eye: Highly corrosive – severe irritant. Contact may result in pain, lacrimation, redness, conjunctivitis, corneal burns and ulceration with possible permanent damage.
Skin: Highly corrosive. Contact may result in rash, dermatitis, blistering, severe burns and discolouration. Effects (eg. Burning sensation) may be delayed.
Inhalation: Toxic – corrosive. Over exposure may result in irritation, coughing and bronchitis. At high levels: intense thirst, ulceration, lung tissue damage, chemical pneumonitis and pulmonary oedema. Symptoms may be delayed following exposure.

Section 12 : ECOLOGICAL INFORMATION

Ecotoxicity: Toxic to aquatic invertebrates at low levels.
Persistence / Degradability: No data available.
Mobility: No data available.
Environmental Fate: No data available.
Bioaccumulative Potential : No data available.



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Section 13 : DISPOSAL CONSIDERATIONS

Disposal Methods: Wearing the protective equipment detailed above, neutralise to pH 6-8 by SLOW addition to a saturated sodium bicarbonate solution or similar basic solution. Dilute with excess water and flush to drain. Waste disposal should only be undertaken in a well ventilated area or using a fume cupboard. Do not add water to unreacted acidic products.

Special Precautions for Landfill or Incineration: No data available.

The Disposal Considerations mentioned above applies to the material / product described in this MSDS as manufactured. Further processing, use, or contamination of the product may make the information inappropriate, inaccurate or incomplete.

Section 14 : TRANSPORT INFORMATION

UN Number: 1789
UN Shipping Name: HYDROCHLORIC ACID
Dangerous Goods Class: 8
Packing Group: II
Special Precautions / Requirement: Handle with care.
HAZCHEM Code: 2R

Additional Information –
Material for Export: N/A

Section 15 : REGULATORY INFORMATION

Poison Schedule Number: 6
EPG : 8A1
AICS Name : HCl
NZ Toxic Substance N/A



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Section 16 : OTHER INFORMATION

Last Revision: 10/12/2007

THIS MATERIAL SAFETY DATA SHEET IS OFFERED SOLELY FOR YOUR INFORMATION, CONSIDERATION AND INVESTIGATION. CONSOLIDATED ALLOYS PROVIDES NO WARRANTIES, EITHER EXPRESSED OR IMPLIED AND ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE DATA CONTAINED HEREIN. MATERIAL USE IS BEYOND THE CONTROL OF SUPPLIER.

----- End of MSDS -----