



Manufacturers of Instruments for
pH, Redox, Specific Ions,
Conductivity, Salinity,
Dissolved Oxygen,
Humidity, Temperature,
for Research and Industry



Manufacturer : TPS Pty Ltd
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MATERIAL SAFETY DATA SHEET

Not Classified as Hazardous According to Criteria of Worksafe Australia

IDENTIFICATION

Dilute Hydrochloric Acid (1 M)

Part No	Product Code	Description & Volume
121314	GFPHR	pH Probe Rejuvenation Solution, 200mL

UN Number	: 1789	Dangerous Goods Class	: 8
Other Names	: Nil	Subsidiary Risk	: Nil
Manufacturers Code	: GFPHR	Hazchem Code	: 2R
G.T.EPG	: 8A1	Poisons Schedule	: S5 (Fed)
Spec. EPG	: No data	Pack	: Grp:II
IMDG	: 8183		

Uses : Soaking solution for restoring pH Sensor performance.

Physical Description / Properties :

Appearance : Pale yellow liquid
Boiling Point (°C) : 100 (approx)
Vapour Pressure (mm of Hg @ 25°C) : 25 (approx)
Specific Gravity : 1
Flash Point (°C) : Not flammable
Flammability Limits (%) : Not flammable
Solubility in Water (g/L) : Completely miscible

Other Properties : pH ~ 0.2

Ingredients :

Chemical Entity	CAS No	Proportion
Hydrochloric Acid – Dilute	[7647-01-0]	1 M
Water	[7732-18-5]	to 100%



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HEALTH HAZARD INFORMATION

Health Effects :

Eye : Corrosive to eyes.
Contamination of eyes may result in serious injury.

Skin : Contact with skin may result in irritation. Harmful in contact with the skin

Inhaled : Low hazard for usual industrial handling.

Swallowed : Will cause damage to the mucous membranes.
Harmful if swallowed

Chronic Effects : No data

First Aid :

Eye : Immediately irrigate with copious quantity of water for at least 15 minutes.
Eyelids to be held open.
Seek immediate medical assistance.

Skin : Wash affected areas with copious quantities of water immediately.
If irritation occurs seek medical advice.
Remove contaminated clothing and wash before re-use.
Treat skin and clothing with 1% sodium bicarbonate solution to neutralize acid residues.

Inhaled : Remove victim to fresh air.
Employ artificial respiration if indicated.
Seek medical attention.

Swallowed : Poison Information Centres in each State capital city can provide additional assistance for scheduled poisons.
Rinse mouth thoroughly with water immediately.
Give water or milk to drink. DO NOT induce vomiting.
Seek immediate medical assistance.

Advice to Doctor :

Treat symptomatically as for acids.

Toxicity Data : Concentrated Hydrochloric acid; Oral LD50(rabbit): 900 mg/kg
Inhalation LCLo(human): 1300 ppm/30 minutes
Inhalation LCLo(human): 3000 ppm/5 minutes



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PRECAUTIONS FOR USE

- Exposure Standards** : TLV/TWA: 7 mg/m³, 5 ppm; Worksafe Aust. - peak limitation - Is the concentration that should not be exceeded even instantaneously.
Odour Threshold: 1 - 5ppm IDLH Value: 100 ppm
- Engineering Controls** : Maintain concentration below recommended exposure limit.
- Personal Protection** : For normal use, where contaminant vapour levels are well below the TLV, the following personal protective equipment is required: Gloves and glasses.
- Flammability** : Non flammable.
- Environment** : Avoid contaminating waterways.
- Other Precautions** : Keep away from strong oxidising agents and strong bases. Avoid contact with metals. Reacts with zinc, brass, galvanised iron, aluminium, copper and copper alloys. Keep away from cyanides and sulphides.



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SAFE HANDLING INFORMATION

- Storage and Transport** : Store in cool place and out of direct sunlight.
Store in well ventilated area.
Store away from oxidizing agents.
Store away from foodstuffs.
Keep containers securely sealed and protected against physical damage.
Not to be loaded with Class 1, 4.3, 5.1, 5.2, 6*,7, 8* Foodstuff and foodstuff empties. (* where the Class 6 substance is a cyanide and the Class 8 substance is an acid).
- Packaging & Labelling** : As required by the ADG Code and the Standard for the Uniform Scheduling of Drugs and Poisons.
- Spills and Disposal** : Clear area of all unprotected personnel.
For large spills notify Emergency Services.
Contain - prevent contamination of drains and waterways.
Use absorbent (soil or sand, sawdust, inert material, vermiculite).
Collect and seal in properly labelled drums for disposal.
Neutralise remaining product with lime or soda ash, adjusting pH to 6-10.
Flush to sewer as a greatly diluted solution.
Wear full protective clothing (see Personal Protection/Ventilation Section).
Refer to appropriate State Waste Disposal Authority
Observe local regulations.
- Reactivity Data** : No data
- Fire/Explosion Hazard** : Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion.
Decomposes on heating emitting toxic fumes.
Hazardous decomposition products : Hydrogen Chloride
Use water to keep the substance cool.
Extinguish fire with the following : Use water spray.
- Other** :
- References** : Sax,N.Irving, "Dangerous Properties of Industrial Materials", Van Nostrand Reinhold (1984).
"Threshold Limit Values for 1987-88" American Conference of Governmental Industrial Hygienists.
Commonwealth of Australia,"Australian Code for the Transport of Dangerous Goods by Road and Rail" AGPS (1987).
Lenga, Robert E. (ed.), "Safety, The Sigma-Aldrich Library of Chemical Safety Data", Sigma-Aldrich Corp., 1st edition (1985).

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