# SDS 27228 Hydrochloric Acid 10%

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name ECP Limited

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Product	Hydrochloric	Acid 10%		Cod	27228	
CAS#	HSNO#	UN#	DG	Packing group # Tracking?		Handlers
			Class/es			Certificate?
7647-10-0	HSR004090	1789	8	II	6.1B	6.1B

**Recommended use:** Laboratory Investigations

### 2. Hazards identification

2.1 GHS Classification

Corrosive to Metals (Category A)

Skin corrosion (Category B)

Serious eye damage (Category A)

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word **Danger** 

Hazard statement(s)

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Precautionary statement(s)

Prevention P234

Keep only in original container.

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

Storage

P405 Store locked up.

P406 Store in corrosive resistant stainless-steel container with a resistant inner liner.

Disposal

P501 Dispose of contents/container to an approved waste disposal plant.

2.3 Other hazards

None

## 3. Composition/information on ingredients

No components need to be disclosed according to the applicable regulations.

### 4. First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water.

Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation of vapours may cause burning sensation, cough, wheezing, shortness of breath, spasm, inflammation and oedema of the larynx, spasm, inflammation and oedema of the bronchi, pneumonitis, pulmonary oedema.

4.3 Indication of any immediate medical attention and special treatment needed No data available

## 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

### 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

## 7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Metal containers must be lined. Corrodes metal.

7.3 Specific end use(s)

No data available

### 8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

None.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eve/face protection

Tightly fitting safety goggles. Faceshield. Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 69 min

**Body Protection** 

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

# 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance Form: liquid

Colour: light yellow

b) Odour pungent

c) Odour Threshold No data available

d) pH < 1

e) Melting point/freezing point

Solidification/setting point: -30 °C

f) Initial boiling point and boiling range

> 100 °C - lit.

g) Flash point

Not applicable

h) Evaporation rate

No data available

i) Flammability (solid, gas)

No data available

j) Upper/lower flammability or explosive limits

No data available

k) Vapour pressure

190 hPa at 20 °C

227 hPa at 21.1 °C

547 hPa at 37.7 °C

I) Vapour density

No data available

m) Relative density

1.2 g/cm3 at 25 °C

n) Water solubility

completely miscible

o) Partition coefficient: n-octanol/water

No data available

p) Auto-ignition temperature

No data available

q) Decomposition temperature

No data available

r) Viscosity

No data available

# 10. Stability and reactivity

10.1 Reactivity

Corrosive in contact with metals

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reactions

Exothermic reaction with amines, aldehydes, permanganates.

Risk of ignition or formation of inflammable gases or vapours with aluminium, carbides, fluorine, metals, bases, sulphides.

Risk of explosion with alkali metals, sulphuric acid.

Gives off hydrogen by reaction with metals.

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Metals

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions

Hydrogen chloride gas

Other decomposition products

No data available

## 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Inhalation: inhalation may provoke the following symptoms: respiratory irritation, cough, difficulty in breathing, pneumonia.

Skin corrosion/irritation

Skin - Rabbit - Causes burns.

Serious eye damage/eye irritation

Eyes - Rabbit - Corrosive to eyes

Respiratory or skin sensitisation

Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

No data available

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Specific target organ toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant.

Aspiration hazard

No aspiration toxicity classification

Potential health effects

Inhalation

May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Causes respiratory tract irritation.

Ingestion

May be harmful if swallowed. Causes burns.

Skin

May be harmful if absorbed through skin. Causes skin burns.

Eyes

Causes eye burns.

Signs and Symptoms of Exposure

Inhalation of vapours may cause burning sensation, cough, wheezing, shortness of breath, spasm, inflammation and oedema of the larynx, spasm, inflammation and oedema of the bronchi, pneumonitis, pulmonary oedema.

Additional Information RTECS: MW4025000

# 12. Ecological information

12.1 Toxicity

Toxicity to fish

LC50 - Lepomis macrochirus (Bluegill) - 24.6 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 4.91 mg/l - 48 h

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

May be harmful to aquatic organisms due to the shift of the pH. Do not empty into drains.

### 13. Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

# 14. Transport Information Table

		ADR/RID – European packaging	IMDG International	IATA – DGR International Air Travel
		certification	Maritime Dangerous Goods Code	Association – Dangerous Goods Regulations
14.1	UN Number	1789	1789	1789
14.2	<b>UN Proper Shipping</b>	HYDROCHLORIC	HYDROCHLORIC	Hydrochloric acid
	name	ACID	ACID	
14.3	Transport Hazard	8	8	8
	Class			
14.4	Packaging group	II	II	II
14.5	Environmental	No	No	No
	Hazards			
14.6	Special precautions	No data available		
	for user			

### 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture National regulatory information

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group

Standard 2006

Tracking Required: 6.1B
Approved Handler Cert.: 6.1B

### 16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary

damages.			

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damages howsoever arising, even if the company has been advised of the possibility of such