



## SAFETY DATA SHEET

Date of issue: 22/04/03

### 1. Identification of the substance/preparation and of the company/undertaking

#### *Identification of the product*

Catalogue No: 28507

ID No.: 1012500

Product name: **Hydrochloric acid sp.gr. 1.18 GPR**

Use of the substance/preparation: General chemical reagent

#### *Manufacturer/supplier identification*

Company: VWR International Ltd  
Hunter Boulevard, Magna Park, Lutterworth, Leicestershire, England, LE17 4XN  
Telephone : + 44 (0) 1455 558600      Telefax : + 44 (0) 1455 558586

Emergency telephone No.: + 44 (0) 1202 669700

### 2. Composition/information on ingredients

#### *Chemical characterization*

Acid

Product name: Hydrochloric acid 25-37%

CAS number: 7647-01-0

EC-No.: 231-595-7

Molecular formula: HCl = 36.46 g/mol

#### *Hazardous ingredients:*

Hydrochloric acid	25-37%	
CAS number:	7647-01-0	EC-No.: 231-595-7
Symbol(s):	C	
R-phrases:	R34-37	
S-phrases:	S26-45	

### 3. Hazards identification

Causes burns. Irritating to respiratory system.

### 4. First aid measures

- Eye contact: Irrigate thoroughly with water for at least 10 minutes. OBTAIN MEDICAL ATTENTION.
- Inhalation: Remove from exposure, rest and keep warm. In severe cases, or if exposure has been great, OBTAIN MEDICAL ATTENTION.
- Skin contact: Drench the skin thoroughly with water. Remove contaminated clothing and wash before re-use. Unless contact has been slight, OBTAIN MEDICAL ATTENTION.
- Ingestion: Wash out mouth thoroughly with water and give plenty of water to drink. OBTAIN MEDICAL ATTENTION.

## **5. Fire-fighting measures**

### ***Special risks:***

Not combustible.  
May evolve toxic fumes in fire. (Hydrogen chloride)

### ***Suitable extinguishing media:***

To suit environment.

## **6. Accidental release measures**

Wear appropriate protective clothing. Inform others to keep at a safe distance.  
Spread soda ash liberally over the spillage. If local regulations permit, mop up cautiously with plenty of water and run to waste, diluting greatly with running water. Otherwise transfer to container and arrange removal by disposal company. Wash site of spillage thoroughly with water.  
For large spillages liquids should be contained with sand or earth and both liquids and solids transferred to salvage containers. Any residues should be treated as for small spillages.

## **7. Handling and storage**

### ***Handling:***

Avoid contact with skin and eyes. Do not breathe vapour. Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance. Do not empty into drains.

### ***Storage:***

Store in a cool place (below 15°C). Keep well closed and protected from direct sunlight and moisture.

## **8. Exposure controls/personal protection**

### ***UK Exposure Limits:***

WEL - Hydrogen chloride (gas and aerosol mists):  
Long-term: 2 mg/m<sup>3</sup> (1 ppm) Short-term: 8 mg/m<sup>3</sup> (5 ppm) (ILV)

### ***Personal protective equipment:***

As appropriate to the situation and the quantity handled. Engineering methods to control or prevent exposure are preferred. Methods could include process enclosure or mechanical ventilation.

- Respirator: Self-contained breathing apparatus when vapours are generated.
- Ventilation: Fume cupboard
- Gloves: Rubber or plastic. Gloves subject to permeation or any sign of degradation must be removed and replaced immediately.
- Eye Protection: Goggles or face-shield
- Other Precautions: Plastic apron, sleeves, boots - if handling large quantities

## **9. Physical and chemical properties**

### **General information:**

Form:	liquid
Colour:	colourless
Odour:	pungent

### **Health, safety and environmental information:**

Melting temperature	~ -40°C
Boiling temperature	~ 85°C
Density(g/ml)	1.1-1.2
Vapour pressure	146mmHg, 25°C
Solubility in water	Miscible in all proportions
pH value	<1
Flash point	Not applicable
Explosion limits: lower:	Not applicable

### **10. Stability and reactivity**

Stable.

Unsuitable working materials: metals, metal alloys.

Substances to be avoided

amines, carbides, hydrides, fluorine, alkali metals, metals, Potassium permanganate, strong bases, salts of oxyhalogenic acids, conc. sulphuric acid, aldehydes, sulphides.

The possibility of reaction with other substances cannot be excluded.

### **11. Toxicological information**

Strongly corrosive substance.

- After skin contact: Burns.
- After eye contact: Burns. Risk of blindness!
- After inhalation of vapours: Irritation symptoms in the respiratory tract.
- After ingestion: Damage to: mouth, oesophagus, gastrointestinal tract. Risk of perforation in the oesophagus and stomach. After a latency period: cardiovascular failure.

### **Further data**

LC50 5 mg/l inhalation, rat.

We have no evidence of carcinogenic effects. We have no evidence of mutagenic or teratogenic effects.

### **12. Ecological information**

Adverse ecological effects cannot be excluded in the event of improper handling or disposal.

### **Further ecological data:**

The following applies to HCl in general (including that produced from a reaction): Biological effects: Harmful effect on aquatic organisms. Harmful effect due to pH shift. Lethal for fish from 25 mg/l; LC50 (Leuciscus idus): 862 mg/l (1N-solution). For plants, harmful effects begin at 6 mg/l. Does not cause biological oxygen deficit.

### **Remarks:**

Do not allow to enter drinking water supplies, waste water, or soil!

### 13. Disposal considerations

Chemical residues are generally classified as hazardous or special waste, and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company. Rinse out empty containers thoroughly before returning for recycling.

### 14. Transport information

UN-No.: 1789

Class: 8

Packaging group: II

Proper shipping name: HYDROCHLORIC ACID SOLUTION

### 15. Regulatory information

#### *Labelling according to EC directives*

Symbol(s): C Corrosive.

R-phrases: R34-37

Causes burns. Irritating to respiratory system.

S-phrases: S26-36/37/39-45

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

EC-No.: 231-595-7

#### *Local Regulations*

Within the UK, the use of this material must be assessed under the Control of Substances Hazardous to Health (COSHH) regulations.

### 16. Other information

Revision.

Supersedes edition of: 08/12/96

Reason for alteration: Changes in Section : 8

Date of issue: 22/04/03

Date of print: 19/10/05

#### *Text of R phrases listed in section 2*

R34: Causes burns.

R37: Irritating to respiratory system.