



S a f e t y   D a t a   S h e e t  
According to Regulation (EC) 1907/2006  
and (EU) 453/2010

**2109 Hydrochloric Acid 5 mol/l (5N)**

**1. Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

Name:

Hydrochloric Acid 5 mol/l (5N)

**Synonym:**

Muriatic Acid

**CAS:** [7647-01-0]

**REACH Registration Number:** A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) N° 1907/2006, the annual tonnage does not require a registration, the registration is envisaged for a later registration deadline or it is a mixture.

**1.2 Relevant identified uses of the substance or mixture:**

For laboratory utilisation, analysis, research and fine chemistry.

**1.3 Identification of the company or firm:**

PANREAC QUIMICA S.L.U.

C/Garraf 2

Polígono Pla de la Bruguera

E-08211 Castellar del Vallès

(Barcelona) Spain

Tel. (+34) 937 489 400

e-mail: [product.safety@panreac.com](mailto:product.safety@panreac.com)

**1.4 Emergency telephone:**

Single telephone number for emergency calls: 112 (EU)

Tel.: (+34) 937 489 499

**2. Identification of dangers**

**2.1 Classification of the substance or the mixture.**

## **Classification Regulation (CE) nº 1272/2008.**

Eye Irrit. 2  
STOT SE 3  
Skin Irrit. 2

## **Classification (67/548/CEE or 1999/45/CE).**

**Xi** Irritant

R36/37/38

### **2.2 Label elements:**

#### **Hazard Pictograms**



#### **Signal word**

Warning

#### **Hazard statements**

H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H315 Causes skin irritation.

#### **Precautionary statements**

P261 Avoid breathing dust, fume, gas, mist, vapours or spray.  
P264 Wash...thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves, protective clothing, eye protection or face protection.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

For the full text of the R-phrases mentioned in this section, see section 16.

### **2.3 Other hazards:**

No further relevant information available.

## **3. Composition/information on ingredients**

Hydrochloric solution

Name: Hydrochloric Acid 5 mol/l (5N)  
Formula: HCl M.= 36,46 CAS [7647-01-0]  
EC number (EINECS): 231-595-7  
EC index number: 017-002-01-X

## COMPOSITION:

### 0001: Hydrochloric Acid 37%

Formula: HCl M.= 36,46 CAS [7647-01-0]

EC number (EINECS): 231-595-7

EC index number: 017-002-01-X

REACH Registration Number: 01-2119484862-27-XXXX

**Content:** >= 10 % <= 25 %

### Classification Regulation (CE) nº 1272/2008.

Met. Corr. 1

Skin Corr. 1B

STOT SE 3

### Hazard Pictograms



### Signal word

Danger

### Hazard statements

H290 May be corrosive to metals.

H335 May cause respiratory irritation.

H314 Causes severe skin burns and eye damage.

### Precautionary statements

P234 Keep only in original container.

P390 Absorb spillage to prevent material damage.

P406 Store in corrosive resistant/ container with a resistant inner liner.

P264 Wash...thoroughly after handling.

P280 Wear protective gloves, protective clothing, eye protection or face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P321 Specific treatment (see on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P261 Avoid breathing dust, fume, gas, mist, vapours or spray.

P271 Use only outdoors or in a well-ventilated area.

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

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P405 Store locked up.

P501 Dispose of contents/container according to Directive 94/62/CE or 2008/98/CE.

**Classification (67/548/CEE or 1999/45/CE).**

**C** Corrosive  
**Xi** Irritant

**R36/37/38** Irritating to eyes,  
respiratory system and skin.  
**R34** Causes burns.

## **4. First aid measures**

### **4.1 General indications:**

Never provide drink or induce vomiting in the event of loss of consciousness.

### **4.2 Inhaling:**

Take the person out into the fresh air. In the event sickness persists, seek medical assistance.

### **4.3 Contact with the skin:**

Wash with plenty of water. Remove contaminated clothing.

### **4.4 Eyes:**

Wash with plenty of water, keeping eyelids open. In the event of irritation, seek medical assistance.

### **4.5 Swallowing:**

Drink large amounts of water. Induce vomiting. Call for medical help.

## **5. Firefighting measures**

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

Water.

### **5.2 Unsuitable extinguishing media:**

No specific data.

### **5.3 Special hazards arising from the substance or mixture:**

Incombustible. Upon contact with metals, hydrogen gas may form (there is a risk of explosion). Precipitate fumes formed with water.

### **5.4 Advice for firefighters:**

Suitable clothing and footwear. Self-contained breathing equipment.

## **6. Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures:**

Do not inhale the fumes. Avoid contact with the skin, eyes or clothing.

### **6.2 Environmental precautions:**

Avoid pollution of the soil, water supplies and drains.

### **6.3 Methods and material for containment and cleaning up:**

Collect up with absorbent materials (Panreac General Absorbent, Kieselguhr, etc.) or, if none available, dry sand or earth, and deposit in waste containers for subsequent elimination in accordance with current legislation. Neutralize with diluted sodium hydroxide.

## **7. Handling and storage**

### **7.1 Precautions for safe handling:**

No special indications.

### **7.2 Conditions for safe storage, including any incompatibilities:**

Well sealed containers. In well ventilated premises.

**Recommended storage temperature:** Room temperature. Do not store in metal containers.

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

### **8.1 Exposure controls:**

No special indications.

### **8.2 Control parameters:**

VLA-EC(HCl): 10 ppm = 15 mg/m<sup>3</sup> VLA-ED(HCl): 7,6 mg/m<sup>3</sup> VLA-ED(HCl): 5 ppm

### **8.3 Respiratory protection:**

In the event of fumes forming/aerosols, use suitable respiratory protection. Filter E (HCl). Filter P (HCl).

### **8.4 Hand protection:**

Use suitable gloves neopren nitrile latex

### **8.5 Eye/face protection:**

Use safety glasses.

### **8.6 Individual hygiene measures:**

Remove contaminated clothing. Use suitable work clothing. Wash hands and face before breaks and when the job is done.

### **8.7 Environmental exposure controls:**

Fulfill the commitments under local environmental protection legislation.

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

Appearance: liquid

Colour: Colourless

Granulometry: N/A

Odour: Piquant.

pH: <1

Melting point/freezing point: N/A

Initial boiling point and boiling range:

N/A

Flash point:

N/A

Flammability (solid, gas):

N/A

Upper/lower flammability or explosive limits:

N/A

Vapour pressure: N/A

Vapour density: N/A

Relative density:

Insertar Aquí Grupo de repetición

(20/4) 1,08 g/ml

Solubility: Miscible with water

Partition coefficient: n-octanol/water:

N/A

Auto-ignition temperature:

N/A

Decomposition temperature: N/A

Kinematic viscosity: N/A

Dynamic viscosity:

N/A

## **10. Stability and reactivity**

### **10.1 Conditions to avoid:**

The product is chemically stable under standard ambient conditions (room temperature).

### **10.2 Incompatible materials:**

Concentrated sulfuric acid. Aldehydes. Aluminium. Amines. Strong bases. Carbides. Fluorine. Hydrides. Metals. Alkaline metals. KMnO<sub>4</sub>. Salts of oxyhalogenic acids. Semimetallic hydrogen compounds. Semimetallic oxides. Sulphides. Lithium silicide. Vinyl methyl ether.

### **10.3 Hazardous decomposition products:**

Hydrogen chloride. Chlorine.

### **10.4 Chemical stability:**

No specific data.

## **11. Toxicological information**

### **11.1 Acute toxicity:**

LC<sub>50</sub> inh rat : 3124 ppm 1h

### **11.2 Dangerous effects for health:**

If fumes inhaled: Irritations to the respiratory tracts. Upon contact with the skin: irritations Through contact with the eyes: irritations

## **12. Environmental information**

### **12.1 Toxicity:**

#### **- EC50 test (mg/l):**

Fish test 25 mg/l

Classification:

Toxic

Leuciscus idus (48h)(1N) 862 mg/l

Classification:

Very toxic

#### **- Receptor medium:**

Risk for the water environment

Medium

Risk for the land environment

Medium

#### **- Observations:**

Has a major acute effect on the water and land environment depending on pH.

### **12.2 Persistence and Degradability :**

#### **- Test:**

#### **- Biotic degradation classification:**

BOD5/COD

Biodegradability

#### **- Abiotic degradation depending on pH:**

#### **- Observations:**

Does not consume oxygen biologically.

### **12.3 Bioaccumulative potential:**

#### **- Test:**

#### **- Bioaccumulation:**

Risk = ----

#### **- Observations:**

It is not bio-accumulable, although it is accumulable in water courses and soils in saline form (Cl-).

### **12.4 Mobility in soil :**

Data not available.

### **12.5 Assessment PBT and MPMB :**

Data not available.

### **12.6 Other adverse effects:**

Generally, its effect is acutely considerable in the dumping area. Its long-term effect is not so considerable if the dumping is not frequent.

The treatment is neutralization.

## **13. Disposal considerations**

### **13.1 Waste treatment methods:**

In the European Union, there are no homogeneous standards established for elimination of chemical waste, which is waste of a special nature, and treatment and elimination of same is subject to the domestic legislation in each country.

In view of this, in each case, you should contact the competent authority or those companies legally authorized for elimination of waste.

2001/573/EC: Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regards the list of wastes. Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

.

### 13.2 Contaminated containers:

Contaminated containers and packaging of dangerous substances or preparations must be treated in the same manner as the actual products contained in them. European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

## 14. Transport information

Overland (ADR):

Technical name: HYDROCHLORIC ACID

UN 1789 Class: 8 Packaging group: II (E)

By sea (IMDG):

Technical name: HYDROCHLORIC ACID

UN 1789 Class: 8 Packaging group: II

By air (ICAI-IATA):

Technical name: Hydrochloric acid

UN 1789 Class: 8 Packaging group: II

Packaging instructions: CAO 855 PAX 851

## 15. Regulatory information

The substance is subject to Regulation (EC) No 273/2004 of the European Parliament and of the Council, of 11 February 2004 on drug precursors, Council Regulation (EC) No 111/2005 of 22 December 2004 laying down rules for the monitoring of trade between the Community and third countries in drug precursors, Commission Regulation (EC) No 1277/2005 of 27 July 2005 laying down implementing rules for Regulation (EC) No 273/2004 of the European Parliament and of the Council on drug precursors and for Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors.

## 16. Other information

### Other precautionary statements

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.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P321 Specific treatment (see on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

### Labelling (65/548/CEE or 1999/45/CE)

R-phrases(s): **R36/37/38** Irritating to eyes, respiratory system and skin.

S-phrases(s): **S26** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.



Version and revision date : 5 18.07.2014

Date published: 15.09.2011

In respect of the previous review, changes have been made to the following sections: 14

The information included in this Safety Data Sheet is based on our most up-to-date knowledge, and is solely intended to inform regarding aspects of safety; the properties and characteristics indicated herein are not guaranteed.