

# HYDROGEN CHLORIDE (HCl)

Synonyms : Chlorhydric acid; Muriatic; Hydrochloric acid



## Gas Description

Hydrogen Chloride is a colourless, toxic, non-flammable gas that emits a pungent suffocating odour and gives off thick acidic fumes in moist air. It has a gas density at STP 1.563 kg/m<sup>3</sup>.

### Typical applications :

Manufacturing of organic and inorganic chlorides  
Etching of semi-conductor wafers  
Cleaning electronic quartz furnaces  
Production of chlorinated rubbers

### Transport Regulations :

UN Number : 1050  
Shipping Name : HYDROGEN CHLORIDE,  
ANHYDROUS  
Class : 2.3 (8) Toxic (corrosive)  
CAS Number : 7647-01-0  
Hazchem : 2RE

[Click here](#) for MSDS

[Click here](#) for more information

## Physical Properties

Chemical symbol : HCl  
Molecular weight : 36.46  
Specific gravity (Air=1) : 1.268  
Specific volume (m<sup>3</sup>/kg) : 0.68  
Critical temperature : -151°C  
Boiling point : -85.1°C

Melting Point : -114.8°C  
Critical pressure (bar) : 82.62  
Major hazards : Inhalation and Body Contact  
Toxicity : TWA 5ppm STEL peak limitation  
Flammability Range : Non-Flammable  
Odour : Pungent, Suffocating

[Click here](#) for more information

## Application

### INDUSTRY

Laboratories and Analysis

Metals Industry

Electronics

Chemicals

### APPLICATION

Hydrogen chloride is used in calibration gas mixes for environmental emission monitoring.

Used to enhance the separation coefficient of ores. Hot galvanizing process can use HCl.

Used in semiconductor fabrication for etching of native oxide, CVD reactor cleaning.

Used to produce a large variety of organic chlorinated compounds. Chlorinated metals (such as aluminium or silicon chlorides) are produced with HCl.

[Click here](#) for more information

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## Hydrogen Chloride

<u>Gas</u>	<u>Cylinder information</u>			
Typical impurities (ppm molar)	Cylinder Size	Valve Connection	Pressure (kPa)	Contents (m <sup>3</sup> )

Available Upon Request  
Call For Supply Information

### Recommended Equipment

For further information [Contact](#) the specialty gases representative in your region.