

## Hydrochloric acid, solution 25% w/w, for analysis, ExpertQ®, ISO

**Identification**

HCl  
M = 36,46 g/mol  
CAS [7647-01-0]  
EC number: 231-595-7  
Taric code: 2806 10 00

**Synonyms**

Hydrogen chloride solution

**Applications**

laboratory reagent, acidifying agent, in the production of chlorides, synthesis of organic products.

**Specifications**

assay (acidimetric).....	min. 25 %	germanium (Ge).....	max. 0,05 ppm
colour (Hazen).....	max. 10	heavy metals (as Pb).....	max. 1 ppm
free chlorine (as Cl).....	max. 0,00005 %	iron (Fe).....	max. 0,2 ppm
bromides (Br).....	max. 0,005 %	lead (Pb).....	max. 0,02 ppm
phosphates (as PO <sub>4</sub> ).....	max. 0,00005 %	lithium (Li).....	max. 0,01 ppm
sulfates (SO <sub>4</sub> ).....	max. 0,0001 %	magnesium (Mg).....	max. 0,1 ppm
sulfites (SO <sub>3</sub> ).....	max. 0,0001 %	manganese (Mn).....	max. 0,01 ppm
aluminium (Al).....	max. 0,05 ppm	molybdenum (Mo).....	max. 0,02 ppm
ammonium (NH <sub>4</sub> ).....	max. 0,0001 %	nickel (Ni).....	max. 0,02 ppm
arsenic (As).....	max. 0,01 ppm	potassium (K).....	max. 0,1 ppm
barium (Ba).....	max. 0,02 ppm	sodium (Na).....	max. 0,5 ppm
beryllium (Be).....	max. 0,02 ppm	strontium (Sr).....	max. 0,01 ppm
bismuth (Bi).....	max. 0,1 ppm	thallium (Tl).....	max. 0,05 ppm
cadmium (Cd).....	max. 0,01 ppm	titanium (Ti).....	max. 0,1 ppm
calcium (Ca).....	max. 0,5 ppm	vanadium (V).....	max. 0,01 ppm
chromium (Cr).....	max. 0,02 ppm	zinc (Zn).....	max. 0,05 ppm
cobalt (Co).....	max. 0,01 ppm	zirconium (Zr).....	max. 0,1 ppm
copper (Cu).....	max. 0,02 ppm	residue on ignition.....	max. 0,0005 %

**Physical data**

- Density: ~ 1,12 g/cm<sup>3</sup>
- Solub. in water: (20 °C): miscible
- Melting point: ~ -70 °C
- Boiling point: 107 °C
- Vapour pressure: (20 °C) 12 hPa
- pH(20 °C) < 1

**Safety - GHS**

**Signal Word:** Danger

**Hazard Statements:**

- H314: Causes severe skin burns and eye damage.  
H335: May cause respiratory irritation.

**Precautionary Statements:**

- P260: Do not breathe dust / fume / gas / mist / vapours / spray.  
P303+P361+P353: IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.  
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 or doctor / physician.  
P405: Store locked up.  
P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

**Transport/storage**

- ADR: 8 C1 II • UN 1789 • HYDROCHLORIC ACID
- IMDG: 8 II • UN 1789 • HYDROCHLORIC ACID
- IATA/ICAO: 8 II • UN 1789 • HYDROCHLORIC ACID
- PAX: 809
- CAO: 813
- 10°C - 30°C