

## Hydrochloric acid, solution 32% 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. 32 %	heavy metals (as Pb).....	max. 0,0001 %
colour (Hazen).....	max. 10	indium (In).....	max. 0,05 ppm
bromides (Br).....	max. 0,005 %	iron (Fe).....	max. 0,1 ppm
phosphates (as PO <sub>4</sub> ).....	max. 0,00005 %	lead (Pb).....	max. 0,01 ppm
sulfates (SO <sub>4</sub> ).....	max. 0,0001 %	lithium (Li).....	max. 0,01 ppm
sulfites (SO <sub>3</sub> ).....	max. 0,0001 %	magnesium (Mg).....	max. 0,05 ppm
free chlorine (as Cl).....	max. 0,00005 %	manganese (Mn).....	max. 0,01 ppm
aluminium (Al).....	max. 0,05 ppm	mercury (Hg).....	max. 0,01 ppm
ammonium (NH <sub>4</sub> ).....	max. 0,0001 %	molybdenum (Mo).....	max. 0,01 ppm
arsenic (As).....	max. 0,01 ppm	nickel (Ni).....	max. 0,02 ppm
barium (Ba).....	max. 0,02 ppm	platinum (Pt).....	max. 0,1 ppm
beryllium (Be).....	max. 0,02 ppm	potassium (K).....	max. 0,1 ppm
bismuth (Bi).....	max. 0,02 ppm	silver (Ag).....	max. 0,05 ppm
cadmium (Cd).....	max. 0,01 ppm	sodium (Na).....	max. 0,2 ppm
calcium (Ca).....	max. 0,2 ppm	strontium (Sr).....	max. 0,01 ppm
chromium (Cr).....	max. 0,02 ppm	thallium (Tl).....	max. 0,02 ppm
cobalt (Co).....	max. 0,01 ppm	titanium (Ti).....	max. 0,02 ppm
copper (Cu).....	max. 0,02 ppm	vanadium (V).....	max. 0,01 ppm
gallium (Ga).....	max. 0,05 ppm	zinc (Zn).....	max. 0,05 ppm
germanium (Ge).....	max. 0,02 ppm	zirconium (Zr).....	max. 0,02 ppm
gold (Au).....	max. 0,05 ppm	residue on ignition.....	max. 0,0005 %

**Physical data**

- Density: 1,15 g/cm<sup>3</sup>
- Solub. in water: (20 °C): miscible
- Melting point: -40 °C
- Boiling point: 84 °C
- Vapour pressure: (20 °C) 21,3 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