

**Identification**

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

**Synonyms**

Hydrochloric acid fuming, Muriatic acid, Hydrogen chloride solution

**Specifications**

assay (acidimetric).....	34 - 37 %	lutetium (Lu).....	max. 0,1 ppb
colour (Hazen).....	max. 10	magnesium (Mg).....	max. 0,5 ppb
bromides (Br).....	max. 0,001 %	manganese (Mn).....	max. 0,1 ppb
free chlorine (as Cl).....	max. 0,00005 %	mercury (Hg).....	max. 0,1 ppb
total phosphorus (P).....	max. 10 ppb	molybdenum (Mo).....	max. 0,1 ppb
total sulfur (S).....	max. 300 ppb	neodymium (Nd).....	max. 0,1 ppb
aluminium (Al).....	max. 1 ppb	nickel (Ni).....	max. 0,5 ppb
antimony (Sb).....	max. 0,5 ppb	niobium (Nb).....	max. 0,1 ppb
arsenic (As).....	max. 0,5 ppb	potassium (K).....	max. 1 ppb
barium (Ba).....	max. 0,1 ppb	praseodymium (Pr).....	max. 0,1 ppb
beryllium (Be).....	max. 0,1 ppb	rhenium (Re).....	max. 0,1 ppb
bismuth (Bi).....	max. 0,1 ppb	rhodium (Rh).....	max. 0,1 ppb
boron (B).....	max. 1 ppb	rubidium (Rb).....	max. 0,1 ppb
cadmium (Cd).....	max. 0,1 ppb	ruthenium (Ru).....	max. 0,1 ppb
calcium (Ca).....	max. 1 ppb	samarium (Sm).....	max. 0,1 ppb
cerium (Ce).....	max. 0,1 ppb	scandium (Sc).....	max. 0,1 ppb
cesium (Cs).....	max. 0,1 ppb	selenium (Se).....	max. 1 ppb
chromium (Cr).....	max. 0,5 ppb	silver (Ag).....	max. 1 ppb
cobalt (Co).....	max. 0,1 ppb	sodium (Na).....	max. 1 ppb
copper (Cu).....	max. 0,5 ppb	strontium (Sr).....	max. 0,1 ppb
dysprosium (Dy).....	max. 0,1 ppb	tellurium (Te).....	max. 0,1 ppb
erbium (Er).....	max. 0,1 ppb	terbium (Tb).....	max. 0,1 ppb
europium (Eu).....	max. 0,1 ppb	thallium (Tl).....	max. 0,1 ppb
gadolinium (Gd).....	max. 0,1 ppb	thorium (Th).....	max. 0,1 ppb
gallium (Ga).....	max. 0,1 ppb	thulium (Tm).....	max. 0,1 ppb
gold (Au).....	max. 0,5 ppb	tin (Sn).....	max. 0,5 ppb
hafnium (Hf).....	max. 0,1 ppb	titanium (Ti).....	max. 0,5 ppb
holmium (Ho).....	max. 0,1 ppb	tungsten (W).....	max. 0,1 ppb
indium (In).....	max. 0,1 ppb	uranium (U).....	max. 0,1 ppb
iron (Fe).....	max. 1 ppb	vanadium (V).....	max. 0,5 ppb
lanthanum (La).....	max. 0,1 ppb	ytterbium (Yb).....	max. 0,1 ppb
lead (Pb).....	max. 0,1 ppb	yttrium (Y).....	max. 0,1 ppb
lithium (Li).....	max. 0,1 ppb	zinc (Zn).....	max. 1 ppb
		zirconium (Zr).....	max. 0,1 ppb

**Physical data**

- Density: ~ 1,19 g/cm<sup>3</sup>
- Solub. in water: (20 °C): miscible
- Melting point: -28 °C
- Boiling point: ~ 50 °C
- Vapour pressure: (20 °C) 190 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