

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







Applications

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

Specifications

assay (acidimetric).....	36,5 - 38,0 %	heavy metals (as Pb).....	max. 0,0001 %
identity.....	passes test	iron (Fe).....	max. 0,00001 %
appearance of solution.....	passes test	lead (Pb).....	max. 0,000001 %
colour (Hazen).....	max. 10	lithium (Li).....	max. 0,000001 %
bromides (Br).....	max. 0,005 %	magnesium (Mg).....	max. 0,000005 %
phosphates (as PO ₄).....	max. 0,00005 %	manganese (Mn).....	max. 0,000001 %
sulfates (SO ₄).....	max. 0,00005 %	mercury (Hg).....	max. 0,000001 %
sulfites (SO ₃).....	max. 0,00005 %	molybdenum (Mo).....	max. 0,000001 %
free chlorine (as Cl).....	max. 0,00004 %	nickel (Ni).....	max. 0,000002 %
aluminium (Al).....	max. 0,000005 %	platinum (Pt).....	max. 0,00001 %
ammonium (NH ₄).....	max. 0,0001 %	potassium (K).....	max. 0,00001 %
arsenic (As).....	max. 0,000001 %	silver (Ag).....	max. 0,000002 %
barium (Ba).....	max. 0,000001 %	sodium (Na).....	max. 0,00003 %
beryllium (Be).....	max. 0,000001 %	strontium (Sr).....	max. 0,000001 %
bismuth (Bi).....	max. 0,000005 %	thallium (Tl).....	max. 0,000002 %
boron (B).....	max. 0,00001 %	tin (Sn).....	max. 0,000005 %
cadmium (Cd).....	max. 0,000001 %	titanium (Ti).....	max. 0,000002 %
calcium (Ca).....	max. 0,00003 %	vanadium (V).....	max. 0,000001 %
chromium (Cr).....	max. 0,000001 %	zinc (Zn).....	max. 0,000005 %
cobalt (Co).....	max. 0,000001 %	zirconium (Zr).....	max. 0,000002 %
copper (Cu).....	max. 0,000001 %	residue on ignition.....	max. 0,0003 %
gallium (Ga).....	max. 0,000005 %	residue on evaporation.....	max. 0,001 %
germanium (Ge).....	max. 0,000002 %	extractable organic substances.....	passes test (about 0,0005 %)
gold (Au).....	max. 0,000005 %		

Packaging
Packaging Code

1 l  AC07411000
 1 l  AC07411001
 2,5 l  AC07412500
 2,5 l  AC07412501
 5 l  AC0741005P
 25 l  AC0741025P

Physical data

- Density: ~ 1,19 g/cm³
- 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.
 P321: Specific treatment (see on this label).
 P405: Store locked up.
 P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

Toxicological data

- MAK: 2 ml/m³, 3,0 mg/m³
- WGK: 1
- Poison class CH (Swiss): 2

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
- Store below 25°C