

SYNTHESIS HYDROCHLORIC ACID

Last revision 2010

Chemical Name: Molecular formula: HCl
 NO.CAS: 7647-01-0
 Abbreviation: -

General Description:

Hydrochloric acid is a solution of hydrogen chloride in water. Hydrochloric acid is a colorless to yellow-greenish liquid, with sharp odor. The product can be mixed in any proportion with water, acetic acid, ethyl alcohol, chloroform, acetone, etc.

Hydrochloric acid is a strong acid and also a very stable compound. At heat (over 1500°C) it decomposes in hydrogen and chlorine.

Technical Quality Conditions:

Characteristics	MU	Values		Test methods
		Type I	Type II	
Appearance	-	clear liquid		visual
Color	-	Colorless to yellowish	Colorless to yellow-greenish	visual
Hydrogen chloride (HCl), min.	%	32		STAS 339
Iron (Fe), max.	%	0.001	0.002	STAS 339
Chlorine (Cl ₂),max.	%	0.01		ILL003/2-44

Specific Properties:

pH	0,1 (solution 4%)
Boiling point	-84°C
Density, g/cm ³	1.19
Ignition temperature	not ignitable

The values of those characteristics are approximated, and are only for general information and are not part of the technical quality conditions.

Main Applications:

- inorganic and organic chemical industry;
- pharmaceutical industry;
- synthetic fibers industry;
- leather industry;
- metalworking industry (for scouring and decaling);
- as regenerating agent for ion exchange resins used in water demineralization plants;
- oil industry as neutralizing agent, for oil processing;
- metallurgical industry as pickling and cleaning agent;
- rubber industry, for chloroprene synthesis;
- ceramic and textile industries;



Shipping Information:

- lined steel tanks (ebonite, epoxy covering).
The tank capacity should be adequate to carry a sufficiently large stock and be able to receive the total amount of volume from the road tanker.

Storage:

Hydrochloric acid must be stored and disposed of in compliance with relevant regulations.

Hydrochloric acid should be stored in a cool, dry, well-ventilated area in tightly sealed containers protected from exposure to weather, extreme temperature changes, and physical damage. Also, the product is stored in ebonite steel tanks, provided with degassing pipes. Product should not exceed 100 degrees F at delivery or during storage.

Hydrochloric acid is considered as a strong oxidizer and steps should be taken to separate hydrochloric acid and hydrochloric acid products from incompatible materials such as copper, brass, bronze, galvanized steel, tin, zinc, oxidizers, combustible materials, plastics, rubber.

Safety Considerations:

Please refer to the product Material Safety Data Sheet (MSDS) offering customers help to better satisfy their particular handling, safety and disposal needs and those that may be required by locally applicable health and safety regulations.

Warning:

Hydrochloric acid is highly corrosive hazardous product. In contact with some metals, hydrochloric acid releases hydrogen (fire danger!).

Avoid body contact. It is dangerous to eyes and skin. Destroys skin tissues and causes severe chemical burns.

Inhalation of vapors can cause serious injury to respiratory tract. Ingestion can injure the digestive system.

Attention:

Information contained in this document is provided to the best of our knowledge and experience.

Please contact OLTCHIM to see if the document has been revised.

Important:

For a better suitability of the product for your particular purpose, tests are recommended prior product use. You are advised to make your own determination as to safety, appropriate manner of handling, storage, use and disposal. All the information contained in this product technical sheet is offered for your consideration, investigation and verification. The data is presented in good faith and is believed to be reliable. You should not consider the descriptions, information, data or design as a part of our terms and conditions of sale. We expressly disclaim responsibility or liability for any loss, damage or expense arising out of reliance on the information provided herein.