



TECHNICAL DATA SHEET

Product Name

Hydrochloric Acid

MVC-TDS-01
Issue Date : 1/18/23
Rev. Code : 03
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Product Description

Hydrochloric acid (HCl), also known as muriatic acid, is the aqueous (water-based) solution of hydrogen chloride gas; when it reacts with an organic base, it forms a hydrochloride salt. This strong acid is highly corrosive and must be handled with appropriate safety precautions.

Typical Applications

- Chemical manufacturing
- pH control
- Water treatment
- Boiler scale removal
- Laboratory reagent
- Pickling and cleaning of metals
- Ore refining
- Food processing
- Oil-well and gas-well treatment
- Household cleaning

Product Characteristics

- Antimicrobial
- Excellent acidifying reagent
- Strong acid
- Corrosive

Product Registration

- Hydrochloric Acid
Category Code: G1
NSF Registration No. 151723

Product Packaging

- Tanker
- Lorry
- HDPE Drum
- Carboy

General Properties

Appearance	Clear to light yellow liquid	Vapor Density	1.26 (air = 1)
Odor	Strong, pungent, irritating	Specific Gravity	1.152 - 1.164 @ 30°C
Threshold Limit Value	5 ppm	Solubility	Completely soluble (water)
pH	< 1, strong acid	Evaporation rate	> 1.00 (N-butyl acetate)
Freezing Point	-30 °C	Viscosity	1.7 mm ² /s at 20°C
Boiling Point /Range	81.5°C - 110°C	Concentration	31.50% - 33.50%
Vapor Pressure	35 mmHg @ 20 °C	Iron Concentration	5.00 ppm max.

Product Technical Assistance

For technical assistance or further information on this product or any other MVC products, contact your MVC technical service representative at the address or telephone number given below.

Process Flow



The synthesis of HCl is performed by combustion of hydrogen and chlorine gas. Both the reaction and the absorption of heat in water are highly exothermic. The HCl gas formed is absorbed in demineralized water to produce HCl acid which is then stored in rubberlined steel tanks.



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Storage

- Store in a cool, dry, ventilated storage area with acid resistant floors and good drainage.
- Keep away from incompatible materials such as oxidizing agents, organic materials, metals and alkalis.
- Protect from physical damage.
- Storage tanks and piping for HCl should be constructed of materials recommended for corrosive products.
- Keep container tightly closed.

Safety Precautions

- Store in corrosion-resistant container.
- Keep container closed when not in use.
- Emergency shower and eyewash facility should be in close proximity to where hydrochloric acid is handled.
- Avoid breathing vapors.
- Avoid contact with eyes, skin and clothing.
- Wash hands thoroughly after handling.
- Wear goggles and face shield, chemical resistant gloves, boots and apron or suit.

Related Documents

- The latest version of this document will be available at our website, or can be obtained from the MVC technical service representative.
- The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.
 - ❖ Safety Data Sheet

Disclaimer

- The product can be used only for the application as specified hereabove.
- To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability whatsoever for the accuracy and completeness of such information.
- We make no warranties which extend beyond the description contained herein. Nothing herein shall constitute any implied warranty of merchantability or fitness for a particular purpose.
- It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.
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