e-Product Data Sheet

HYDROCHLORIC ACID – TECHNICAL GRADE

PDS-1300-1103

Hydrochloric acid can be manufactured either purposely or as a by-product. However, the volume of hydrochloric acid manufactured as a by-product is so important that purposely made hydrochloric acid is not often produced.

Hydrochloric acid, also known as muriatic acid, is a colourless to yellow liquid, with a pungent odour. Hydrochloric acid is a strong acid used as chemical reagent, pH-regulating, ion exchanger regenerating, pickling or cleaning agent.

Some applications of this product may be regulated or restricted by national or international standards (e.g. for food additives, water treatment, the pharmaceutical industry, etc). The buyer and the eventual user, in his sole and entire liability, shall respect those standards, orders of any relevant authority, and all existing patents and intellectual properties rights; and shall comply with the laws and the regulations applicable to our products and/or to his activity. The buyer and the eventual user must independently determine the suitability of this product for any particular purpose and its manner of use.
Please contact us for further information on grades developed for a specific end-use.

HYDROCHLORIC ACID

Plants

Torrelavega (Spain), Rheinberg (Germany), Tavaux (France), Bussi (Italy), Rosignano (Italy), Spinetta-Marengo (Italy), Póvoa de Santa Iria (Portugal).

Storage Plants

Bad Zurzach (Switzerland), Tavazzano (Italy).

Standard specification

Product characteristics

Content	Unit	Value(1)	Method of analysis(2)
Hydrochloric acid (HCl)	g/kg	≥ 320	Titrimetry (ISO 904)
Iron (Fe)	mg/kg	≤ 5	Spectrophotometry (ISO 6685)

(1) The values are expressed per kg of solution as such.
(2) The product is analysed with the mentioned methods or with local methods depending on laboratory equipments.

Packaging characteristics

Bulk.

Please contact us for further information on product characteristics (methods of analysis, etc) and packaging characteristics (description of road tankers, etc).

Identification

Hydrochloric acid	HCl
Molecular weight	36,47
CAS Number	7647-01-0
ID Number (Annex 1)	017-002-01-X
EC Number (EINECS)	231-595-7

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Physical and chemical characteristics(3)

Characteristic	Unit	Value
Density (at 20 °C)	kg/dm³	1,164
Boiling point (under 101,3 kPa)	°C	~ 72
Freezing point (under 101,3 kPa)	°C	~ -41
Vapour pressure (at 20 °C)	kPa	5,1
Viscosity (at 20 °C)	mPa.s	1,872

(3) The values are given for hydrochloric acid 33%.

Storage

- Hydrochloric acid must be stored in compliance with relevant laws and regulations. Tanks should be bunded.
- Hydrochloric acid must be disposed of in compliance with relevant laws and regulations. In case of accidental release, small product quantities could be diluted with large quantities of water then neutralized with a base (sodium carbonate, lime).

Please contact us for further information on product handling and storage.

Safety

- Hydrochloric acid is a **corrosive** product: In case of contact, it rapidly causes burns of the mucous membranes, eyes and skin.
- In contact with sodium hypochlorite, hydrochloric acid produces chlorine (both toxic and dangerous for the environment). In contact with some metals, hydrochloric acid releases hydrogen (flammable). In contact with some alkalis, hydrochloric acid can react violently.
- Hydrochloric acid should be handled by personnel who have received adequate safety training and have been provided with adequate **individual protective equipments** (gloves, goggles, etc).
- Handling of hydrochloric acid should be accompanied by **collective protective measures** (clearly signalled showers and eye baths in the vicinity).

Please consult our safety data sheet.

Transport information

UN number	1789
ADR/ADNR/RID/IMDG class	8
Packing group	II
Hazard label	8
Placard	80/1789

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