

2026 Hydrochloric Acid Analyzer

From Metrohm Process Analytics

Hydrochloric acid (HCl), also known as muriatic acid, is a highly corrosive basic chemical majorly formed as a co-product from various processes. It is also used as an acid etchant in surfacing industries (such as automotive, semiconductor, etc.) as well as in the production of an array of different products. Some of the main uses are in the production of chlorine gas (Cl_2) and polymers (such as polyvinyl chloride, or PVC), as a metal surface treatment (pickling), and of course as a process pH adjustment.

Because of its role in many different (production) processes, it is of vital importance to closely monitor the concentration. The **2026 Hydrochloric Acid process analyzer** from Metrohm Process Analytics is the most straightforward and easy-to-use tool to do so online.

About the Hydrochloric Acid application

Hydrochloric acid is determined by titrating with sodium hydroxide (NaOH), or alternatively with sodium carbonate (Na_2CO_3). The detection is performed with a Metrohm pH glass electrode. The analyzer is able to handle a wide range of acid concentrations, from **mg/L to %**.



Benefits for online analysis

- Protect expensive company assets by monitoring your processes
- Process data available at your fingertips 24/7 means no waiting for slow, manual laboratory methods
- Increased safety for employees – no manual sampling necessary, no exposure to acidic environments
- Save money by reducing downtime: analyzer sends alarms for out-of-specification values which inform the operator sooner

Applications for HCl

- ... in chlorine production / (chemical)
- ... in pickling & etching baths / (steel/galvanic/metals)
- ... in polymer production (EDC, VCM, PVC) / (polymer)
- ... in electroplating processes / (semiconductors/PCB)
- ... in acid scrubber solutions / (chemical)
- ... in inorganic chloride production / (chemical)
- ... as a pH adjustment in process / (various industries)

HCl analysis performed safely online

- Hydrochloric acid (HCl) can be measured in 1 or 2 sample streams
- Compact footprint for tight industrial spaces: 326 x 273 mm
- Safe, rugged enclosure designed to IP66 specifications is ideal for process environments
- A 7" full color touchscreen shows trend graphs and allows action modifications
- Remote access and control via Ethernet and Modbus TCP/IP, with USB for data export
- Easy maintenance due to simplicity of the layout
- Automatic data and/or alarm transfer to a DCS system

