

# 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<sub>2</sub>) 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<sub>2</sub>CO<sub>3</sub>). 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



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# 2026 Sulfuric Acid Analyzer

## From Metrohm Process Analytics

Sulfuric acid ( $H_2SO_4$ ) is a basic chemical used in several industries for the production of hundreds of different products. The main uses are in production of phosphates, (phosphate) fertilizers, polymers, pigments, and the creation of other acids as well as in metal processing, semiconductors, galvanic applications, and in the refining of petrochemicals. Sulfuric acid is also known as the «King of Chemicals».

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

### About the Sulfuric Acid application

Sulfuric acid is determined by titrating with sodium hydroxide (NaOH). The detection is done 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, reagents kept separately
- Save money by reducing downtime: analyzer sends alarms for out-of-specification values which inform the operator sooner

## Applications for $H_2SO_4$

- ... in pickling baths / (steel/galvanic/metal markets)
- ... in metal extraction and refining / (metals/mining)
- ... in phenol production / (chemical)
- ... in aluminum etching / (metals/semiconductors)
- ... in acid scrubber solutions / (chemical)
- ... in copper plating baths / (semiconductor/PCB)
- ... in nylon spin baths / (textiles)

## $H_2SO_4$ analysis performed safely online

- Sulfuric acid ( $H_2SO_4$ ) 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
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# 2026 Hydrogen Peroxide Analyzer

## From Metrohm Process Analytics

Hydrogen peroxide ( $H_2O_2$ ) is a strong oxidizing agent and a bactericide. Its decomposition does not form any harmful disinfection byproducts (DBPs), but rather water and oxygen. This property makes it an attractive chemical replacement for other oxidizing agents, such as chlorine ( $Cl_2$ ), which is an irritant and can cause health problems like asthma via long-term exposure. Some of the main uses of  $H_2O_2$  are in the production of organic peroxides (e.g. propylene oxide), as a bleaching agent especially in the pulp & paper sector, and as a disinfectant in the food & beverage industry.

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

### About the Hydrogen Peroxide application

$H_2O_2$  is determined via potassium permanganate titration. The detection is performed with a Metrohm platinum electrode. The analyzer is able to handle a wide range of  $H_2O_2$  concentrations, from **mg/L to g/L**.



## 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 hazardous environments
- Save money by reducing downtime: analyzer sends alarms for out-of-specification values which inform the operator sooner

## Applications for $H_2O_2$

- ... in CMP slurries / (semiconductors/PCB)
- ... in production of detergents / (chem./personal care)
- ... as a disinfectant / (food & beverage/cooling towers)
- ... as an oxidant in process / (chemical)
- ... in cosmetics (toothpaste, hair dye) / (personal care)
- ... in wastewater treatment processes / (wastewater)
- ... in the Chemical Dilution System / (semiconductors)

## $H_2O_2$ analysis performed safely online

- Hydrogen peroxide ( $H_2O_2$ ) 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
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