

PERIODIC ACID

Puriss Grade

Technical Data Sheet

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Product Data

Chemical Name	Periodic Acid
Molecular Weight	227,94
REACH registration nr.	01-2120784508-41-0003
Chemical formula	H ₅ IO ₆
C.A.S. number	10450-60-9
UN number	3085

Applications

- In the microelectronics industry, it is used for the chemical mechanical planarization of silicon wafers.
- Organic chemical applications: determining the structure of carbohydrates; oxidation at benzylic position to aldehyde or ketone; oxidation of benzyl alcohols to benzoic acids; selective oxidation of sulfides to sulfoxides; deprotection of dithio- and oxathio-derivatives, etc.
- Commonly used as a laboratory chemical and analytical reagent.

Specification*

Test	Requirements
Appearance (visual)	White or off - white crystals
Assay (H ₅ IO ₆ , iodometry)	99.0 – 101.0 %, m/m
Water insoluble matter (filter test)	max. 0.01 %, m/m
Residue on ignition	max. 0.05 %, m/m
Iodic acid (HIO ₃ , iodometry)	max. 1.0 %, m/m
Chloride, bromide, chlorate, bromate (as Cl ⁻ , limit test)	max. 0.02 %, m/m
Iodide (I ⁻ , limit test)	max. 0.001 %, m/m
Nitrate (NO ₃ ⁻ , limit test)	max. 0.01 %, m/m
Sulfate (SO ₄ ²⁻ , limit test)	max. 0.01 %, m/m
Calcium (Ca, ICP)	max. 0.005 %, m/m
Cadmium (Cd)	max. 0.005 %, m/m
Cobalt (Co, ICP)	max. 0.005 %, m/m
Copper (Cu, ICP)	max. 0.005 %, m/m
Potassium (K, ICP)	max. 0.01 %, m/m
Iron (Fe, ICP)	max. 0.005 %, m/m
Sodium (Na, ICP)	max. 0.01 %, m/m
Nickel (Ni, ICP)	max. 0.005 %, m/m
Lead (Pb, ICP)	max. 0.005 %, m/m
Zinc (Zn, ICP)	max. 0.005 %, m/m
Heavy Metals (as Pb, limit test)	max. 0.005 %, m/m

*We can also meet individual customer needs regarding quality.

Hazard classification and safety measures

Periodic acid is classified in ADR class 5.1 (oxidizing substances) and has to be transported and handled accordingly. While handling periodic acid, wearing protective glasses and a face shield is recommended. For skin protection, wear protective clothing and protective gloves. To avoid inhaling the substance, where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator with type P3 respirator cartridges as a backup to engineering controls. If the respirator is the sole mean of protection, use a full-face supplied air respirator. For more information, please take a look at our safety data sheet.

Packing and storage

In 20-kg drums that comply with all ADR regulations. We can accommodate individual requests as well. Periodic acid containers have to be tightly closed and stored in a dry and well-ventilated place. Please note that the substance is light-sensitive and hygroscopic.

The information above is based on our most recent knowledge. Application and processing of the material after sale is beyond our control and we cannot assume responsibility for any use of this product outside our premises. The data and information presented above should be considered as guidance only. Our TDS shall not constitute a guarantee for any specific properties or quality standards. The recipients of our products are obliged to check the suitability of this material for the intended use and accept sole responsibility for compliance with any legal requirements relating to its use. This document does not constitute a warranty or guarantee.

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