

**ortho-Phosphoric acid, 85%, for analysis, ExpertQ®, ACS, ISO, Reag. Ph Eur****Identification**

H<sub>3</sub>PO<sub>4</sub>  
M = 98,00 g/mol  
CAS [7664-38-2]  
EC number: 231-633-2  
Taric code: 2809 20 00

**Synonyms**

Orthophosphoric acid

**Applications**

analytical chemistry, laboratory reagent, in fertilizer compositions, solvents (for pharmaceuticals synthesizing), antioxidant (in food industry).

**Specifications**

assay (acidimetric).....	min. 85 %	cadmium (Cd).....	max. 0,5 ppm
identity.....	passes test	calcium (Ca).....	max. 0,002 %
appearance of solution.....	passes test	cobalt (Co).....	max. 0,5 ppm
colour (Hazen).....	max. 10	copper (Cu).....	max. 0,5 ppm
insoluble in water.....	max. 0,001 %	heavy metals (as Pb).....	max. 0,001 %
volatile acids (as CH <sub>3</sub> COOH).....	max. 0,001 %	iron (Fe).....	max. 0,001 %
chlorides (Cl).....	max. 0,0002 %	lead (Pb).....	max. 0,5 ppm
fluorides (F).....	max. 0,0001 %	magnesium (Mg).....	max. 5 ppm
nitrates (NO <sub>3</sub> ).....	max. 0,0003 %	manganese (Mn).....	max. 0,5 ppm
phosphites,		nickel (Ni).....	max. 1 ppm
hypophosphites (as H <sub>3</sub> PO <sub>3</sub> ).....	max. 0,002 %	potassium (K).....	max. 5 ppm
sulfates (SO <sub>4</sub> ).....	max. 0,002 %	sodium (Na).....	max. 0,02 %
antimony (Sb).....	max. 5 ppm	zinc (Zn).....	max. 2 ppm
arsenic (As).....	max. 0,5 ppm	substances precipitated with ammonia.....	passes test
		substances reducing KMnO <sub>4</sub> .....	passes test

**Physical data**

- Density: 1,71 g/cm<sup>3</sup>
- Solub. in water: (20 °C): miscible
- Melting point: ~ 21 °C
- Boiling point: ~ 158 °C
- Vapour pressure: (25 °C) 2,2 hPa
- pH(100 g/l H<sub>2</sub>O, 20 °C) < 1
- Hygroscopic

**Safety - GHS**

**Signal Word:** Danger

**Hazard Statements:**

H314: Causes severe skin burns and eye damage.

**Precautionary Statements:**

P260: Do not breathe dust / fume / gas / mist / vapours / spray.

P303+P361+P353: IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor / physician.

P405: Store locked up.

P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

**Transport/storage**

- ADR: 8 C1 III • UN 1805 • PHOSPHORIC ACID, SOLUTION
- IMDG: 8 III • UN 1805 • PHOSPHORIC ACID, SOLUTION
- IATA/ICAO: 8 III • UN 1805 • PHOSPHORIC ACID, SOLUTION
- PAX: 819
- CAO: 821
- 15°C - 25°C