

Identification

H₃PO₄
 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), in pharma industry.

Specifications

assay (acidimetric).....	85,0 - 88,0 %	iron (Fe).....	max. 50 ppm
identification.....	passes test	substances precipitated with ammonia.....	passes test
appearance of solution.....	clear and colourless		
hypophosphorous acid and phosphorous acid.....	passes test	Elemental impurities are analysed according to guideline CHMP/ICH/353369/2013.	
alkali phosphates.....	passes test		
chlorides (Cl).....	max. 50 ppm	Residual solvents are analysed according to guideline CPMP/ICH/283/95.	
nitrates (NO ₃).....	passes test		
sulfates (SO ₄).....	max. 100 ppm		
arsenic (As).....	max. 2 ppm		

Physical data

- Density: 1,71 g/cm³
- 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 H₂O, 20 °C) < 0,5
- 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.
- P321: Specific treatment (see on this label).
- P405: Store locked up.
- P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

Toxicological data

- LD 50 (oral, rat): 1530 mg/kg (anhydrous substance)
- WGK: 1
- Poison class CH (Swiss): 2

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
- Store between 15°C and 25°C