

Identification

H₃BO₃
M = 61,84 g/mol
CAS [10043-35-3]
EC number: 233-139-2
Taric code: 2810 00 90

Synonyms

Orthoboric acid

Applications

in building materials, in porcelain industry, cosmetics, manufacture of dyes, photography, analytical chemistry.

Specifications

assay (acidimetric).....	99,5 - 100,5 %	calcium (Ca).....	max. 0,005 %
identity (IR-spectrum).....	passes test	heavy metals (as Pb).....	max. 0,001 %
appearance of solution.....	clear and colourless	iron (Fe).....	max. 5 ppm
insoluble in CH ₃ OH.....	max. 0,005 %	lead (Pb).....	max. 0,001 %
solubility in ethanol 96 %.....	passes test	organic matter.....	passes test
pH (3,3 %, H ₂ O).....	3,8 - 4,8	nonvolatile with methanol	max. 0,05 %
chlorides (Cl).....	max. 0,001 %		
phosphates (as PO ₄).....	max. 0,001 %		
sulfates (SO ₄).....	max. 0,002 %		

Physical data

- Appearance: crystals, white
- Spec. Density: 1,51 g/cm³
- Bulk density: ~ 400 - 600 kg/m³
- Solub. in water: (20 °C): 46,5 g/l
- Melting point: 185 °C (decomposes)
- Vapour pressure: (20 °C) 2,7 hPa
- pH(33 g/l H₂O, 20 °C) 3,8 - 4,8

Safety - GHS

Signal Word: Danger

Hazard Statements:

H360FD: May damage fertility. May damage the unborn child.



Precautionary Statements:

- P281: Use personal protective equipment as required.
- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P308+P313: IF exposed or concerned: Get medical advice / attention.
- P405: Store locked up.
- P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

Toxicological data

- LD 50 (oral, rat): 2660 mg/kg
- WGK: 1
- Poison class CH (Swiss): 4