

# Boric acid

Meets USP-NF, EP, BP, JP and IP testing specifications

**Product Code: TC580M**

## Product Description :

Molecular weight: 61.83  
Molecular formula:  $H_3BO_3$   
CAS No.: 10043-35-3

## Quality Control:

### Appearance (USP)

Colourless scales of a somewhat pearly luster, or crystals, or white powder that is slightly unctuous to the touch

### Appearance (EP, BP)

White or almost white, crystalline powder, colourless, shiny plates greasy to the touch, or white or almost white crystals.

### Appearance (JP)

Colourless or white, crystals or crystalline powder

### Appearance (IP)

A white, crystalline powder or colourless shiny plates unctuous to the touch or white crystals

### Solubility (EP, BP)

Soluble in water and in ethanol (96%), freely soluble in boiling water and in glycerol (85%)

### Solubility (USP)

Freely soluble in glycerin, in boiling water, and in boiling alcohol; soluble in water and in alcohol

### Solubility (JP)

It is freely soluble in warm water, in hot ethanol (95%) and in glycerin, soluble in water and in ethanol(95%), and practically insoluble in diethyl ether

### Solubility (IP)

Freely soluble in boiling water, in boiling ethanol (95%) and in glycerin (85%); soluble in water and in ethanol (95%)

### Solubility in alcohol (USP)

10% in boiling alcohol dissolves completely

### Solubility in ethanol (96%) (EP, BP)

10% solution in boiling ethanol is not more opalescent than reference suspension II and is colourless

### Solubility in ethanol (IP)

10% solution in boiling ethanol (95%) is not more opalescent than opalescent standard OS2, and colourless

### pH (3.3% in water) : (EP, BP, IP)

3.80 - 4.80

### pH (5% in water) : (JP)

3.50 - 4.10

### Appearance of solution (EP, BP)

3.3% solution in boiling water is clear and colourless

### Appearance of solution (IP)

3.5% solution in boiling water is clear and colourless

### Completeness of solution (USP)

4% solution in water produces a clear solution

### Clarity and color of solution (JP)

4% solution in water or 10% solution in hot ethanol (95%) is clear and colorless

### Identification (JP) : Borate

5% solution responds to the qualitative tests for borate

### Identification A : Borate (USP)

Meets the requirements

### Identification A : (EP, BP, IP)

The flame has a green border

### Identification B : (IP)

3.3% solution in boiling distilled water is slightly acidic

### Identification B : (EP, BP)

3.3% solution in boiling water is acid

### Organic matter (EP, BP)

It does not darken on progressive heating to dull redness

**Sulfate (EP, BP, IP)**

≤ 0.045%

**Heavy metals (JP)**

≤ 0.0010%

**Heavy metals (IP)**

≤ 0.0020%

**Arsenic (JP)**

≤ 0.0005%

**Arsenic (IP)**

≤ 0.0010%

**Loss on drying (USP, JP, IP)**

≤ 0.50% (dry over silica gel for 5 h)

**Assay (NaOH Titration) (EP, BP)**

99.00 - 100.50%

**Assay (NaOH Titration, on dried basis): (USP, IP)**

99.50 - 100.50%

**Assay (NaOH Titration, on dried basis) : (JP)**

min. 99.50%

**Storage and Shelf Life:**

Store below 30°C away from bright light.

Shelf life is 48 months.

Use before expiry date given on the product label.

Revision : 04/2023

**Disclaimer :**

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