

# Preparation of Boric Acid

## BACKGROUND-

Boric acid occurs naturally in volcanic jets of steam. The crude boric acid crystallises on cooling. Commercially boric acid is prepared from sodium borate.

Boric acid is prepared by treating borax with nitric acid and nitric acid is chosen over hydrochloric acid because sodium nitrate is more readily soluble than sodium chloride, and sulphuric acid is hard to wash out so not employed.

**Aim:** Aim of the experiment is to do the preparation of Boric acid.

Boric acid:  $\text{H}_3\text{BO}_3$ ; Molecular weight: 61.84

## REQUIREMENTS-

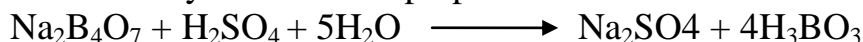
**Sample:** Borax

**Chemicals:** Dilute  $\text{H}_2\text{SO}_4$ ,  
Distilled water

**Apparatus:** Hot water bath,  
Filter paper, Spatula.

## PROCEDURE-

In laboratory boric acid is prepared from sodium borate.



A mixture of concentrated sulphuric acid (6ml) and 30 ml of water was added in to the boiling solution of 30 gm of borax in 80ml of water. Filter the hot solution and keep for crystallization. Filter the crystalline boric acid, wash with distilled water until the washing is free from sulphate (Test with the barium chloride solution) and then dry at room temperature.

## CONCLUSION-

It can be used as local anti-infective agent.

It can be used as a buffer. It can be used as vehicle for ophthalmic solutions.

## REFERENCES-

1. Inorganic medicinal and pharmaceutical chemistry, Block, Roche, Soine, Wilson.
2. Indian Pharmacopoeia, 1996, 2016.