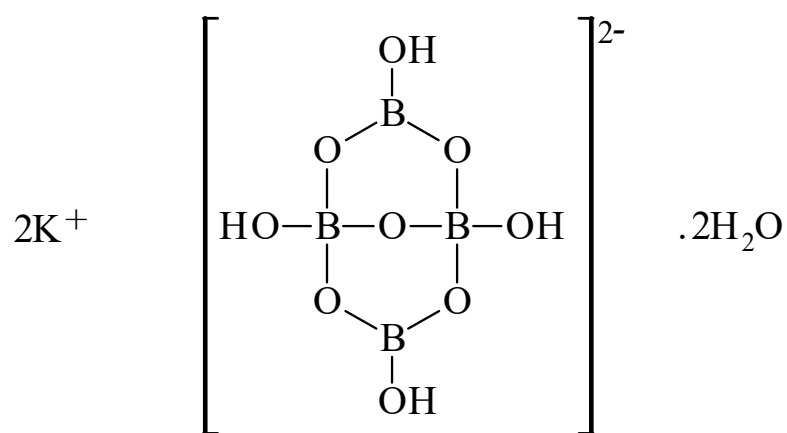




>>Entry Name: Dipotassium tetraborate dihydrate, 9CI

Synonym(s): Dipotassium tetraborate tetrahydrate. Boron potassium oxide ($B_4K_2O_7$) tetrahydrate, 11CI, 10CI, 9CI



CAS Registry Number: 12045-78-2

Molecular Formula: $B_4H_8K_2O_{11}$

Molecular Weight: 305.497

Accurate Mass: 305.971299

Percentage Composition: B 14.16%; H 2.64%; K 25.60%; O 57.61%

Use/Importance: Used as borax substitute when greater aq. solubility is required or when absence of $Na^{(+)}$ necessary

Physical Description: Colourless orthorhombic cryst.

Solubility: Sol. H_2O

Other Data: Loses two H_2O between 112-195°, a third at 195-200° and the last between 240-420°

Aldrich: 28979-5

Fluka: 60542

Sigma: P5754

References:

Marezio, M. *et al.*, *Acta Cryst.*, 1963, **16**, 975, (*cryst struct*)

Weir, C.E., *J. Res. Natl. Bur. Stand., Sect. A*, 1966, **70**, 153, (*ir*)

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Tolédano, P. *et al.*, *C. R. Hebd. Seances Acad. Sci. Ser. C*, 1969, **268**, 412, (*synth*)

Krogh-Moe, J. *et al.*, *Acta Cryst. B*, 1972, **28**, 3089, (*cryst struct*)

Anferov, V.P. *et al.*, *CA*, 1985, **103**, 226096, (*nmr, nqr*)