



>>Entry Name: Sodium tetraphenylborate

Synonym(s): Tetraphenylboron sodium. Tetraphenylborate(1-), sodium salt, 8Cl. Kalignost

CAS Registry Number: 143-66-8

NaBPh₄

Molecular Formula: C₂₄H₂₀BNa

Molecular Weight: 342.223

Accurate Mass: 342.155572

Percentage Composition: C 84.23%; H 5.89%; B 3.16%; Na 6.72%

Source/Synthesis: Synth. by reaction of BF₃ and PhMgBr in THF, followed by addition of NaCl

Use/Importance: Commercially available. Reagent for the detn. of univalent inorg. as well as org. cations. Used as 1% soln. in 0.01M NaOH for gravimetric detn. of K; indirect volumetric detn. of K. Derivatising agent used in gc detn. of Hg²⁽⁺⁾

Physical Description: Needles

Melting Point: Mp 300°

Solubility: Sol. H₂O, EtOH

Hazard & Toxicity: Irritant

Aldrich: T2540-2

Fluka: 72025

Sigma: T4125

References:

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Sporek, K. *et al.*, *Analyst (London)*, 1955, **80**, 347, (*detn, K*)
Cluley, H.J., *Analyst (London)*, 1955, **80**, 355, (*detn, K*)
Holzapfel, H. *et al.*, *J. Prakt. Chem.*, 1964, **26**, 15, (*synth*)
Angelelli, J.M. *et al.*, *J.A.C.S.*, 1969, **91**, 4500, (*ir*)
Luckow, V. *et al.*, *J. Chromatogr.*, 1978, **150**, 187, (*detn, Hg²⁽⁺⁾*)
Popovych, O., *Solubility Data Ser.*, 1981, **18**, 3, (*soly*)
Saski, Y. *et al.*, *Tokyo Kogei Daigaku Kogakubu Kiyo*, 1982, **5**, 39; *CA*, 1983, **99**, 22534, (*pmr, B-11 nmr, cmr*)
Schaedler, H.D. *et al.*, *Z. Chem.*, 1984, **24**, 407, (*Na-23 nmr*)
Tabeta, R. *et al.*, *Bull. Chem. Soc. Jpn.*, 1986, **59**, 1957, (*Na-23 nmr*)