



>>Entry Name: Monobutyl phosphate, 9CI, 8CI

Synonym(s): Butyl dihydrogen phosphate. Butyl phosphoric acid

CAS Registry Number: 1623-15-0

Extra CAS Registry Numbers(s): 12788-93-1

$\text{H}_3\text{C}(\text{CH}_2)_3\text{OP}(\text{O})(\text{OH})_2$

Molecular Formula: $\text{C}_4\text{H}_{11}\text{O}_4\text{P}$

Molecular Weight: 154.102

Accurate Mass: 154.039497

Percentage Composition: C 31.18%; H 7.19%; O 41.53%; P 20.10%

Use/Importance: Extractant for transuranic and rare earth elements. Metab. of Tributyl phosphate [CTD50-A](#)

pKa Value: $\text{p}K_{\text{a}1}$ 1.89; $\text{p}K_{\text{a}2}$ 6.84 (25°, H_2O)

>>Derivative: Monoanilinium salt

Physical Description: Cryst. (EtOH)

Melting Point: Mp 144-148° (138-140°)

>>Derivative: Monocyclohexylammonium salt

CAS Registry Number: 14703-66-3

Physical Description: Solid

Melting Point: Mp 181-182°

References:

Obata, T. *et al.*, *J.O.C.*, 1967, **32**, 1063, (*synth*)

Zwierzak, A. *et al.*, *Tetrahedron*, 1971, **27**, 3163, (*synth, ir, pmr*)

Markowska, A. *et al.*, *Phosphorus Sulfur Relat. Elem.*, 1981, **10**, 245, (*synth*)

Solovkin, A.S., *Radiokhimiya*, 1982, **24**, 56; *Sov. Radiochem. (Engl. Transl.)*, 1982, **24**, 49, (*props, use, rev*)

Suzuki, T. *et al.*, *J. Agric. Food Chem.*, 1984, **32**, 603