



Molecular Formula: C₁₂H₂₂FOP

Molecular Weight: 232.277

Accurate Mass: 232.13923

Percentage Composition: C 62.05%; H 9.55%; F 8.18%; O 6.89%; P 13.33%

Physical Description: No phys. props. reported

>>Derivative: Chloride

CAS Registry Number: 15873-72-0

Molecular Formula: C₁₂H₂₂ClOP

Molecular Weight: 248.732

Accurate Mass: 248.109679

Percentage Composition: C 57.95%; H 8.91%; Cl 14.25%; O 6.43%; P 12.45%

Physical Description: Cryst. (C₆H₆)

Melting Point: Mp 108.5°

>>Derivative: Anhydride

CAS Registry Number: 124823-46-7

Molecular Formula: C₂₄H₄₄O₃P₂

Molecular Weight: 442.557

Accurate Mass: 442.276569

Percentage Composition: C 65.14%; H 10.02%; O 10.85%; P 14.00%

Physical Description: Solid

Melting Point: Mp 109-110°

Boiling Point: Bp_{0.04} 180-185°

References:

Stiles, A.R. *et al.*, *J.A.C.S.*, 1952, **74**, 3282, (*synth*)

Issleib, K. *et al.*, *Z. Anorg. Allg. Chem.*, 1954, **277**, 258, (*synth, chloride, esters*)

Buckler, S.A., *J.A.C.S.*, 1962, **84**, 3093, (*ester*)

Müller, E. *et al.*, *Chem. Ber.*, 1967, **100**, 521, (*synth, chloride*)

Knunyants, I.L. *et al.*, *Dokl. Akad. Nauk SSSR, Ser. Khim.*, 1971, **201**, 862; *Dokl. Chem. (Engl. Transl.)*, 1971, **201**, 992, (*fluoride, F-19 nmr, P-31 nmr*)

Aslanov, L.A. *et al.*, *Zh. Strukt. Khim.*, 1979, **20**, 758; *J. Gen. Chem. USSR (Engl. Transl.)*, 1979, **20**, 646, (*cryst struct*)

Nifant'ev, E.E. *et al.*, *Zh. Obshch. Khim.*, 1980, **50**, 1744; *J. Gen. Chem. USSR (Engl. Transl.)*, 1980, **50**, 1416, (*synth, P-31 nmr*)

Weferling, N. *et al.*, *Z. Anorg. Allg. Chem.*, 1987, **548**, 55, (*chloride*)

Gomelya, N.D. *et al.*, *Zh. Obshch. Khim.*, 1987, **57**, 1702; 1988, **58**, 2652; *J. Gen. Chem. USSR (Engl. Transl.)*, 1987, **57**, 1518; 1988, **58**, 2360, (*synth, anhydride, P-31 nmr*)