



>>Entry Name: Diisopropylphosphoramidous acid, 8Cl
Synonym(s): Bis(1-methylethyl)phosphoramidous acid, 9Cl



Molecular Formula: $\text{C}_6\text{H}_{16}\text{NO}_2\text{P}$
Molecular Weight: 165.172
Accurate Mass: 165.091866
Percentage Composition: C 43.63%; H 9.76%; N 8.48%; O 19.37%; P 18.75%

>>Derivative: Di-*tert*-butyl ester

CAS Registry Number: 137348-86-8
Type of Compound Code(s): AC1050
Molecular Formula: $\text{C}_{14}\text{H}_{32}\text{NO}_2\text{P}$
Molecular Weight: 277.386
Accurate Mass: 277.217066
Percentage Composition: C 60.62%; H 11.63%; N 5.05%; O 11.54%; P 11.17%
Boiling Point: $\text{Bp}_{0.2}$ 85-90°
Density: d 0.88
Refractive Index: n_D^{20} 1.4440

>>Derivative: Di-Ph ester

Synonym(s): Diphenyl diisopropylphosphoramidite

CAS Registry Number: 25781-01-5
Type of Compound Code(s): AC1050
Molecular Formula: $\text{C}_{18}\text{H}_{24}\text{NO}_2\text{P}$
Molecular Weight: 317.367
Accurate Mass: 317.154466
Percentage Composition: C 68.12%; H 7.62%; N 4.41%; O 10.08%; P 9.76%
Physical Description: Liq.
Boiling Point: $\text{Bp}_{0.03}$ 122-123°
Density: d^{20} 1.04
Refractive Index: n_D^{20} 1.5406

>>Derivative: Difluoride

CAS Registry Number: 921-27-7
Type of Compound Code(s): AC1050 AC1020
Molecular Formula: $\text{C}_6\text{H}_{14}\text{F}_2\text{NP}$
Molecular Weight: 169.154
Accurate Mass: 169.083192
Percentage Composition: C 42.60%; H 8.34%; F 22.46%; N 8.28%; P 18.31%
Physical Description: No phys. props. reported

>>Derivative: Dichloride

CAS Registry Number: 921-26-6
Type of Compound Code(s): AC1020 AC1050
Molecular Formula: $\text{C}_6\text{H}_{14}\text{Cl}_2\text{NP}$
Molecular Weight: 202.062
Accurate Mass: 201.02409
Percentage Composition: C 35.67%; H 6.98%; Cl 35.09%; N 6.93%; P 15.33%
Use/Importance: Useful phosphorylating agent
Physical Description: Liq.; solidifies slowly on standing at r.t.
Aldrich: 30725-4

References:

- Aldrich Library of ^{13}C and ^1H FT NMR Spectra*, 1992, **1**, 1470A, (*nmr*)
Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 838A, (*ir*)
Koketsu, J. *et al.*, *Kogyo Kagaku Zasshi*, 1969, **72**, 2503; *CA*, **72**, 79165, (*ester*)
Gouesnard, J.P. *et al.*, *Can. J. Chem.*, 1980, **58**, 1295, (*difluoride*, *N-15 nmr*, *P-31 nmr*)
Gynane, M.J.S. *et al.*, *J.C.S. Dalton*, 1980, 2428, (*dichloride*, *use*)
Kitas, E.A. *et al.*, *Helv. Chim. Acta*, 1991, **74**, 1314, (*di-tert-butyl ester*, *synth*, *pmr*, *P-31 nmr*)
Synthetic Methods of Organometallic and Inorganic Chemistry, (ed. Hermann, W.A.), Thieme, 1996, **3**, 110-112, (*dichloride*, *synth*, *pmr*, *cmr*, *P-31 nmr*)