



>>Entry Name: Diisopropylphosphoramidochloridous acid

Synonym(s): Bis(1-methylethyl)phosphoramidochloridous acid, 11Cl



Molecular Formula: C₆H₁₅ClNOP

Molecular Weight: 183.617

Accurate Mass: 183.057978

Percentage Composition: C 39.25%; H 8.23%; Cl 19.31%; N 7.63%; O 8.71%; P 16.87%

>>Derivative: Me ester

Synonym(s): Methyl diisopropylphosphoramidochloridite

CAS Registry Number: 86030-43-5

Type of Compound Code(s): AC1020 AC1050 AC2020 AC2040

Molecular Formula: C₇H₁₇ClNOP

Molecular Weight: 197.644

Accurate Mass: 197.073628

Percentage Composition: C 42.54%; H 8.67%; Cl 17.94%; N 7.09%; O 8.10%; P 15.67%

Use/Importance: Reagent for oligonucleotide synth. in both liq. and solid phases, and used also in glycerophospholipid synth.

Physical Description: Liq.

Boiling Point: Bp_{0.02} 35-36°

Aldrich: 26252-8

Fluka: 24305

Sigma: D4782

>>Derivative: 2-Cyanoethyl ester

Synonym(s): 2-Cyanoethyl diisopropylphosphoramidochloridite

CAS Registry Number: 89992-70-1

Type of Compound Code(s): AC2040 AC2020 AC1050 AC1020

Molecular Formula: C₉H₁₈ClN₂OP

Molecular Weight: 236.68

Accurate Mass: 236.084527

Percentage Composition: C 45.67%; H 7.67%; Cl 14.98%; N 11.84%; O 6.76%; P 13.09%

Use/Importance: Phosphitylation reagent used in oligonucleotide synth.

Physical Description: Liq.

Boiling Point: Bp_{0.08} 103-105°

Aldrich: 30230-9

Sigma: C7412

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 1469A; 1469B, (*nmr*)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 844A, (*ir*)

McBride, L.J. *et al.*, *Tet. Lett.*, 1983, **24**, 245, (*synth, P nmr*)

Sinha, N.D. *et al.*, *Nucleic Acids Res.*, 1984, **12**, 4539, (*synth, ms, pmr, P nmr, use*)

Damha, M.J. *et al.*, *Tet. Lett.*, 1985, **26**, 4839, (*use*)

Herdering, W. *et al.*, *J.O.C.*, 1985, **50**, 5314, (*use*)

Pon, R.T. *et al.*, *Nucleic Acids Res.*, 1985, **13**, 6447, (*use*)

Bruzik, K.S. *et al.*, *J.O.C.*, 1986, **51**, 2368, (*use*)