



>>Entry Name: Tetraisopropylphosphorodiamidous acid

Synonym(s): Tetrakis(1-methylethyl)phosphorodiamidous acid, 9CI



Molecular Formula: C₁₂H₂₉N₂OP

Molecular Weight: 248.348

Accurate Mass: 248.20175

Percentage Composition: C 58.04%; H 11.77%; N 11.28%; O 6.44%; P 12.47%

>>Derivative: Me ester

Synonym(s): Methyl tetraisopropylphosphorodiamidite

CAS Registry Number: 92611-10-4

Molecular Formula: C₁₃H₃₁N₂OP

Molecular Weight: 262.374

Accurate Mass: 262.2174

Percentage Composition: C 59.51%; H 11.91%; N 10.68%; O 6.10%; P 11.81%

Use/Importance: Reagent for oligoribonucleotide synthesis in liq. and solid phases

Physical Description: Liq.

Boiling Point: Bp₃₀ 86-88°. Bp_{0.45} 74-75°

Density: d²⁶ 0.91

Aldrich: 39256-1

Fluka: 69310

>>Derivative: 2-Cyanoethyl ester

CAS Registry Number: 102691-36-1

Molecular Formula: C₁₅H₃₂N₃OP

Molecular Weight: 301.411

Accurate Mass: 301.228299

Percentage Composition: C 59.77%; H 10.70%; N 13.94%; O 5.31%; P 10.28%

Physical Description: Reagent for oligoribonucleotide synthesis

Aldrich: 30599-5

Fluka: 28314

Sigma: C8539

References:

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

Lee, H.-J. *et al.*, *Chem. Lett.*, 1984, 1229-1232, (*synth, use, Me ester*)

Barone, A.D. *et al.*, *Nucleic Acids Res.*, 1984, **12**, 4051-4061, (*synth, pmr, P-31 nmr, ms, use, Me ester*)

Moore, M.F. *et al.*, *J.O.C.*, 1985, **50**, 2019-2025, (*synth, pmr, P-31 nmr, Me ester*)

Nielson, J. *et al.*, *J. Chem. Res., Synop.*, 1986, 26, (*props*)

Kierzek, R. *et al.*, *Nucleic Acids Res.*, 1986, **14**, 4751, (*use*)

Tanaka, T. *et al.*, *Nucleic Acids Res.*, 1986, **14**, 6265, (*use*)