>>**Entry Name: (Isocyanomethyl)phosphonic acid,** 9CI

$(HO)_2P(O)CH_2NC$

Molecular Formula: $C_2H_4NO_3P$
Molecular Weight: 121.032
Accurate Mass: 120.992881
Percentage Composition: C 19.85%; H 3.33%; N 11.57%; O 39.66%; P 25.59%

>>**Derivative:** Di-Et ester
Synonym(s): Diethyl (isocyanomethyl)phosphonate

CAS Registry Number: 41003-94-5

Molecular Formula: $C_6H_{12}NO_3P$
Molecular Weight: 177.139
Accurate Mass: 177.055481
Percentage Composition: C 40.68%; H 6.83%; N 7.91%; O 27.10%; P 17.49%
Use/Importance: A Wittig-Horner reagt. for synth. of 1-isocyano-1-alkenes, (1-aminoalkyl)phosphonic acids and oxazolinyl- and thiazolinylphosphonic acids
Physical Description: Liq.
Boiling Point: $Bp_{0.2}$ 90°
Aldrich: 35986-6
Fluka: 58833
Sigma: I0514

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **1**, 1491B, *(nmr)*
Schöllkopf, U. *et al.*, *Annalen*, 1974, 44, *(synth, ir, pmr, use)*
Rachoń, J. *et al.*, *Annalen*, 1981, 709; 186; 1693, *(props, use)*
Rachoń, J.*, Chimia*, 1983, **37**, 299; 1984, **38**, 114, *(use)*