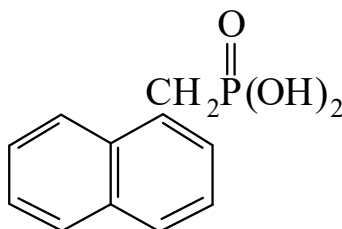




>>Entry Name: (1-Naphthalenylmethyl)phosphonic acid, 9CI

Synonym(s): (1-Naphthylmethyl)phosphonic acid. 1-(Phosphonomethyl)naphthalene



Molecular Formula: C₁₁H₁₁O₃P

Molecular Weight: 222.18

Accurate Mass: 222.044582

Percentage Composition: C 59.47%; H 4.99%; O 21.60%; P 13.94%

Physical Description: Lustrous plates (H₂O)

Melting Point: Mp 212-212.5°

pKa Value: pK_{a2} 7.64

>>Derivative: Di-Et ester

Synonym(s): Diethyl 1-naphthalenylmethylphosphonate

CAS Registry Number: 53575-08-9

Molecular Formula: C₁₅H₁₉O₃P

Molecular Weight: 278.287

Accurate Mass: 278.107182

Percentage Composition: C 64.74%; H 6.88%; O 17.25%; P 11.13%

Use/Importance: Wittig-Horner reagent

Physical Description: Oil

Boiling Point: Bp₅ 205-206°. Bp_{0.2} 202-205°

Refractive Index: n_D²⁵ 1.5610

References:

Kosolapoff, G.M., *J.A.C.S.*, 1945, **67**, 2259, (*synth, ester*)

Ernst, L., *Org. Magn. Reson.*, 1977, **9**, 35, (*ester, cmr*)

Franke, A. *et al.*, *Synthesis*, 1979, 712, (*ester, synth*)

Tominaga, Y. *et al.*, *J. Het. Chem.*, 1982, **19**, 1125, (*use*)

Yasuda, M. *et al.*, *Bull. Chem. Soc. Jpn.*, 1990, **63**, 938, (*di-Et ester, synth, ms, pmr, cmr*)

Katritzky, A.R. *et al.*, *Org. Prep. Proced. Int.*, 1990, **22**, 209, (*synth, pmr, cmr*)