



>>Entry Name: Diphenylphosphine oxide, 9CI

CAS Registry Number: 4559-70-0

Type of Compound Code(s): AC0210

Ph2P(O)H

Molecular Formula: C12H11OP

Molecular Weight: 202.192

Accurate Mass: 202.054752

Percentage Composition: C 71.28%; H 5.48%; O 7.91%; P 15.32%

General Statement: Tautomeric with Diphenylphosphinous acid [GGT91-U](#)

Physical Description: Hygroscopic needles (Et2O)

Melting Point: Mp 57°

pKa Value: pK_{a1} 20.7 (DMSO) pK_{a1} 28 (30°, *tert*-butanol) pK_{a1} 11.9 (12-dimethoxyethane)

Aldrich: 28788-1

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **2**, 1690C, (*nmr*)

Hunt, B.B. *et al.*, *J.C.S.*, 1957, 2413, (*synth, props, ir*)

Nielsen, R.P. *et al.*, *Inorg. Chem.*, 1963, **2**, 753, (*synth, ir, pmr*)

Sanchez, M. *et al.*, *Spectrochim. Acta A*, 1967, **23**, 2617, (*ir*)

Grayson, M. *et al.*, *Tetrahedron*, 1967, **23**, 1065, (*synth*)

Emoto, T. *et al.*, *Bull. Chem. Soc. Jpn.*, 1974, **47**, 2449

Yoshifuji, M. *et al.*, *Phosphorus Sulfur Relat. Elem.*, 1983, **16**, 3, (*ms*)

Tsvetkov, E.N. *et al.*, *Synthesis*, 1986, 198, (*synth*)