



>>Entry Name: Monoethyl phosphate, 9CI, 8CI

Synonym(s): Ethyl dihydrogen phosphate. Ethyl phosphoric acid

CAS Registry Number: 1623-14-9

Related CAS Registry Numbers(s): 37203-76-2

EtOP(O)(OH)₂

Molecular Formula: C₂H₇O₄P

Molecular Weight: 126.049

Accurate Mass: 126.008197

Percentage Composition: C 19.06%; H 5.60%; O 50.77%; P 24.57%

Use/Importance: Product of the photodecomp. of some insecticides e.g. *O*-Ethyl *S,S*-diphenyl phosphorodithioate [DKZ70-M](#) and Mephosfolan [DLC83-O](#), and of the metab. of others e.g. Prothiofos [DLF26-O](#)

Physical Description: Syrup

pKa Value: p*K*_{a1} 1.6; p*K*_{a2} 6.62 (25°,H₂O)

>>Derivative: Monoanilinium salt

CAS Registry Number: 2180-42-9

Physical Description: Cryst. (EtOH)

Melting Point: Mp 164-165°. Mp 145-147°

>>Derivative: Bis(cyclohexylammonium) salt

CAS Registry Number: 4902-59-4

Physical Description: Cryst. (Me₂CO aq.)

Melting Point: Mp 205-206°. Mp 188°

>>Derivative: Difluoride

>>Derivative: Dichloride

References:

Miyano, M. *et al.*, *J.A.C.S.*, 1955, **77**, 3522; 3524, (*synth*)

Montgomery, H.A.C. *et al.*, *J.C.S.*, 1958, 1963, (*synth*)

Obata, T. *et al.*, *J.O.C.*, 1967, **32**, 1063, (*synth*)

Zwierzak, A. *et al.*, *Tetrahedron*, 1971, **27**, 3163, (*synth, ir, pmr*)

Kerr, K.A. *et al.*, *Acta Cryst. B*, 1979, **35**, 2749, (*cryst struct*)

Yamaguchi, H. *et al.*, *Bull. Chem. Soc. Jpn.*, 1981, **54**, 1891, (*synth, ir, pmr*)