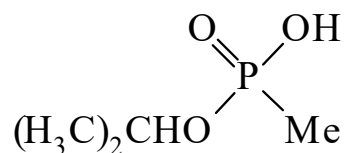




>>Entry Name: Monoisopropyl methylphosphonate

Synonym(s): 1-Methylethyl methylphosphonate. Isopropyl hydrogen methylphosphonate



CAS Registry Number: 1832-54-8

Related CAS Registry Numbers(s): 133415-67-5 133415-68-6

Molecular Formula: C₄H₁₁O₃P

Molecular Weight: 138.103

Accurate Mass: 138.044582

Percentage Composition: C 34.79%; H 8.03%; O 34.76%; P 22.43%

Source/Synthesis: Sarin metabolite

Physical Description: Oil

Boiling Point: Bp_{0.1} 102-104°

Density: d₄²⁰ 1.1

Refractive Index: n_D²⁰ 1.4210

Other Data: Non-toxic

Aldrich: 45874-0

>>Derivative: Ph ester

Synonym(s): Isopropyl phenyl methylphosphonate. (1-Methylethyl) phenyl methylphosphonate

Molecular Formula: C₁₀H₁₅O₃P

Molecular Weight: 214.2

Accurate Mass: 214.075882

Percentage Composition: C 56.07%; H 7.06%; O 22.41%; P 14.46%

Boiling Point: Bp₄ 174°

Density: d₄²⁰ 1.16

Refractive Index: n_D²⁰ 1.5043

>>Derivative: Fluoride

>>Derivative: Chloride

References:

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Cadogan, J.I.G. *et al.*, *J.C.S.(B)*, 1971, 1988, (*synth*)

Zavlin, P.M. *et al.*, *Zh. Obshch. Khim.*, 1972, **42**, 1257; *J. Gen. Chem. USSR (Engl. Transl.)*, 1972, **42**, 1253, (*phenyl ester*)

Wils, E.R.J., *Fresenius' Z. Anal. Chem.*, 1980, **338**, 22, (*ms*)