



>>Entry Name: Monoethyl phosphonate, 12Cl, 9Cl

Synonym(s): Monoethyl phosphite. Ethoxohydridohydroxooxophosphorus(I). Ethoxodi(hydroxo)phosphorus(III)

CAS Registry Number: 15845-66-6

EtOPH(O)OH << >> EtOP(OH)₂

Molecular Formula: C₂H₇O₃P

Molecular Weight: 110.049

Accurate Mass: 110.013282

Percentage Composition: C 21.83%; H 6.41%; O 43.62%; P 28.15%

Physical Description: Thermally unstable liq.

pKa Value: pK_a 0.9 (est.)

Refractive Index: n_D²⁰ 1.4230 (undist.)

>>Derivative: Na salt

CAS Registry Number: 39148-16-8

Physical Description: Needles (EtOH)

Melting Point: Mp 183°

>>Derivative: Al salt

Synonym(s): Fosetyl, BSI, ISO. Phosethyl AL. LS 74 783. Aliette. Efosite. Mikal

CAS Registry Number: 39148-24-8

Use/Importance: Fungicide having widespread use against zoospores and sporangics, but not mycelial growths

Physical Description: Powder

Other Data: Dec. >200° without melting

Hazard & Toxicity: LD₅₀ (rat, orl) 5800 mg/kg

>>Derivative: *p*-Chlorobenzylisothiuronium salt

Physical Description: Solid

Melting Point: Mp 140-142°

>>Derivative: NH₄ salt

Physical Description: Cryst. (EtOH/Me₂CO)

Melting Point: Mp 99-100°

References:

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Okamoto, Y. *et al.*, *Phosphorus, Sulfur, Silicon, Relat. Elem.*, 1991, **55**, 195, (*synth*)

Agrochemicals Handbook, 3rd edn., Royal Society of Chemistry, 1992, A13, (*Fosetyl*)