



>>Entry Name: Omethoate, BSI

Synonym(s): *O,O*-Dimethyl *S*-[2-(methylamino)-2-oxoethyl] phosphorothioate, 9CI. *O,O*-Dimethyl phosphorothioate, *S*-ester with 2-mercapto-*N*-methylacetamide, 8CI. *O,O*-Dimethyl *S*-methylcarbamoylmethyl phosphorothioate. Folimat

CAS Registry Number: 1113-02-6

$(\text{MeO})_2\text{P}(\text{O})\text{SCH}_2\text{CONHMe}$

Molecular Formula: $\text{C}_5\text{H}_{12}\text{NO}_4\text{PS}$

Molecular Weight: 213.194

Accurate Mass: 213.022466

Percentage Composition: C 28.17%; H 5.67%; N 6.57%; O 30.02%; P 14.53%; S 15.04%

Use/Importance: Systemic insecticide and acaricide

Physical Description: Oil

Solubility: Misc. H_2O , almost insol. hexane

Density: d_4^{20} 1.32

Refractive Index: n_D^{20} 1.4987

Other Data: Dec. ca. 135°

Hazard & Toxicity: LD₅₀ (rat, orl) 30 mg/kg; LD₅₀ (rat, skn) 700 mg/kg

References:

U.K. Pat., 1962, 983 734; *CA*, **61**, 579c, (*synth*)

Stan, H.-J. *et al.*, *Fresenius' Z. Anal. Chem.*, 1977, **287**, 271, (*glc, ms*)

Paasivirta, J. *et al.*, *Org. Magn. Reson.*, 1977, **9**, 708, (*pmr, cmr, P-31 nmr*)

Daldrup, T. *et al.*, *Fresenius' Z. Anal. Chem.*, 1981, **308**, 413, (*tlc, hplc, glc*)

Stan, H.-J. *et al.*, *Biomed. Mass Spectrom.*, 1982, **9**, 483, (*ms*)

Charalambous, J. *et al.*, *Phosphorus Sulfur Relat. Elem.*, 1984, **19**, 267, (*ms*)

Mortimer, R.D. *et al.*, *J. Agric. Food Chem.*, 1991, **39**, 911, (*P-31 nmr*)

Pesticide Manual, 9th edn., 1991, No. 9140

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, DNX800