



>>Entry Name: Mecarbam, BSI

ENTRY UNDER REVIEW

Synonym(s): Ethyl 6-ethoxy-2-methyl-3-oxo-7-oxa-5-thia-2-aza-9-phosphanonanoate 6-sulfide, 9CI. *S*-(*N*-Ethoxycarbonyl-*N*-methylcarbamoylmethyl) *O,O*-diethyl phosphorodithioate. Ethyl [[[diethoxyphosphinothioyl]thio]acetyl]methylcarbamate. Murfotox. Pestan

CAS Registry Number: 2595-54-2

$(\text{EtO})_2\text{P}(\text{S})\text{SCH}_2\text{CONMeCOOEt}$

Molecular Formula: $\text{C}_{10}\text{H}_{20}\text{NO}_5\text{PS}_2$

Molecular Weight: 329.377

Accurate Mass: 329.052051

Percentage Composition: C 36.47%; H 6.12%; N 4.25%; O 24.29%; P 9.40%; S 19.47%

Use/Importance: Agricultural insecticide and acaricide with sl. systemic props.

Physical Description: Pale-yellow oil

Boiling Point: $\text{Bp}_{0.02}$ 144°

Solubility: Spar. sol. H_2O

Density: d_{20}^{20} 1.223

Refractive Index: n_D^{20} 1.5138

Hazard & Toxicity: LD₅₀ (rat, orl) 36 mg/kg. LD₅₀ (rat, skn) 380 mg/kg

References:

U.K. Pat., 1957, 867 780; *CA*, **55**, 25756h, (*synth, use*)

Krijgsman, W. *et al.*, *J. Chromatogr.*, 1976, **117**, 201, (*glc*)

Lynch, V.P. *et al.*, *Pestic. Sci.*, 1981, **12**, 65, (*synth, props*)

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

Pesticide Manual, 11th edn., 1991, No. 458

Handbook of Pesticide Toxicology, (Eds. Hayes, W.J. *et al.*), Academic Press, 1991, 1160

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, DJI000