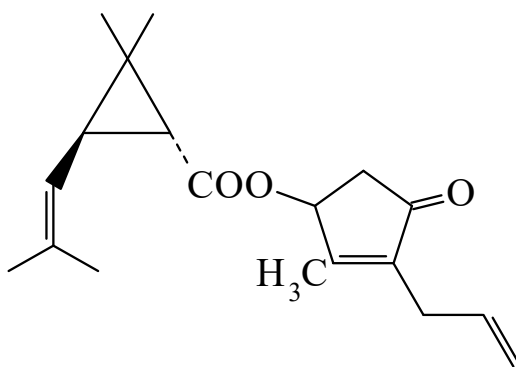




>>>Entry Name: Allethrin, BSI, ISO, JMAF

Synonym(s): 2-Methyl-4-oxo-3-(2-propenyl)-2-cyclopenten-1-yl 2,2-dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylate, 9Cl. Chrysanthemummonocarboxylic acid allethrolone ester. Pynamin. Pallethrine. Exthrin



CAS Registry Number: 584-79-2

Related CAS Registry Numbers(s): 3972-20-1 23453-09-0 34624-48-1 61009-23-2 61009-24-3 61009-25-4 61009-26-5 61009-27-6

Molecular Formula: C₁₉H₂₆O₃

Molecular Weight: 302.413

Accurate Mass: 302.188195

Percentage Composition: C 75.46%; H 8.67%; O 15.87%

Use/Importance: Synthetic pyrethroid insecticide

Calculated Log P Data: Log P 4.05 (calc)

Hazard & Toxicity: Occup. exposure to pyrethroids can lead to paresthesia and respiratory irritation. LD₅₀ (rat, orl) 685 mg/kg

>>>Variant: (+)-trans-form

Synonym(s): Bioallethrin, BAN. S-Bioallethrin

CAS Registry Number: 28434-00-6

Molecular Formula: C₁₉H₂₆O₃

Molecular Weight: 302.413

Accurate Mass: 302.188195

Percentage Composition: C 75.46%; H 8.67%; O 15.87%

Use/Importance: Pyrethroid insecticide

Other Data: Most active form of Allethrin

Hazard & Toxicity: LD₅₀ (rat, orl) 430 mg/kg

References:

- Chen, Y.-L. *et al.*, *J. Agric. Food Chem.*, 1969, **17**, 208
Gore, R.C. *et al.*, *J. Assoc. Off. Anal. Chem.*, 1971, **54**, 10400; *CA*, **75**, 117202g, (*ir*, *uv*)
Pattenden, G. *et al.*, *Org. Mass Spectrom.*, 1973, **7**, 719
Nakazawa, H. *et al.*, *Agric. Biol. Chem.*, 1980, **44**, 1173, (*cmr*)
Nakagawa, S. *et al.*, *Pestic. Biochem. Physiol.*, 1982, **17**, 243, (*synth*)
Elliott, M. *et al.*, *Pestic. Sci.*, 1983, **14**, 182, (*synth*, *activity*)
Papadopoulou-Mourkidou, E., *Residue Rev.*, 1983, **89**, 179, (*rev*)
The Pyrethroid Insecticides, (ed., Leahy, J.P.), Taylor and Francis, London, 1985, (*book*)
Ruzo, L.O. *et al.*, *J. Agric. Food Chem.*, 1986, **34**, 937, (*synth*)
Vijverberg, H.P.M. *et al.*, *Crit. Rev. Toxicol.*, 1990, **21**, 105, (*rev*, *tox*)
Oi, N. *et al.*, *J. Chromatogr.*, 1990, **515**, 441, (*hplc*)
Krief, A. *et al.*, *Synthesis*, 1990, 275, (*synth*)
Pesticide Manual, 9th edn., 1991, No. 130
Eriksson, P. *et al.*, *Toxicol. Appl. Pharmacol.*, 1991, **108**, 78, (*neurotox*)
Agrochemicals Handbook, 3rd edn., Royal Society of Chemistry, 1992, A8
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, AFR250; AFR500; AFR750