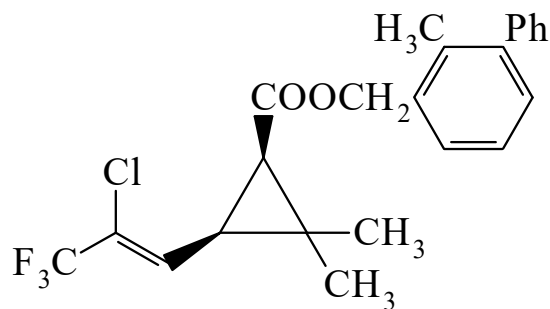




>>Entry Name: Bifenthrin, ANSI, BSI

Synonym(s): (2-Methyl[1,1'-biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate, 9Cl. (2-Methyl-3-phenylphenyl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate. Brigade. Talstar. FMC 54800



CAS Registry Number: 99267-18-2

Related CAS Registry Numbers(s): 83322-02-5 87648-90-6 87680-56-6 107538-31-8 107538-32-9 107538-33-0 107538-34-1 131100-77-1

Molecular Formula: C₂₃H₂₂ClF₃O₂

Molecular Weight: 422.873

Accurate Mass: 422.126041

Percentage Composition: C 65.33%; H 5.24%; Cl 8.38%; F 13.48%; O 7.57%

General Statement: Bifenthrin strictly applies to (1*RS*,3*RS*)-(Z)-form only

Use/Importance: Pyrethroid insecticide

>>Variant: (1*RS*,3*RS*)-(Z)-form

Synonym(s): (±)-*cis*-form. Capture. Biflex

CAS Registry Number: 82657-04-3

Molecular Formula: C₂₃H₂₂ClF₃O₂

Molecular Weight: 422.873

Accurate Mass: 422.126041

Percentage Composition: C 65.33%; H 5.24%; Cl 8.38%; F 13.48%; O 7.57%

Physical Description: Solid

Melting Point: Mp 68-70.6°

Other Data: Appears to be the principal isomer

Hazard & Toxicity: LD₅₀ (rat, orl) 54.5 mg/kg

References:

- U.S. Pat., 1982, 4 332 815; *CA*, **98**, 72491g, (*synth*, *Bifenthrin*)
U.S. Pat., 1983, 4 395 567; *CA*, **99**, 195255m, (*synth*, *isomers*)
Doel, H.J.H. *et al.*, *Meded. Fac. Landbouwwet., Rijksuniv. Gent*, 1984, **49**, 929, (*activity*, *use*)
Fujita, M. *et al.*, *Bull. Chem. Soc. Jpn.*, 1987, **60**, 4385, (*synth*, *isomers*, *pmr*, *F-19 nmr*)
Ruzo, L.O. *et al.*, *J. Agric. Food Chem.*, 1988, **36**, 1040, (*metab*)
Pesticide Manual, 9th edn., 1991, No. 953