

Emamectin benzoate

Nomenclature: emamectin benzoate

Chemical Abstracts name: (4''R)-5-O-demethyl-4''-deoxy-4''-(methylamino)avermectin A_{1a} + (4''R)-5-O-demethyl-25-de(1-methylpropyl) -4''-deoxy-4''-(methylamino)-25-(1-methylethyl)=Avermectin A_{1a}(9:1)

Molecular weight: 1008.3(B_{1a}); 994.2(B_{1b}).

Molecular formula: C₅₆H₈₁NO₁₅(B_{1a}); C₅₅H₇₉NO₁₅(B_{1b})

Formulation: 1% EC

Applications

Biochemistry

Acts by stimulating the release of γ -aminobutyric acid, an inhibitory neurotransmitter, thus causing paralysis.

Mode of action

Non-systemic insecticide which penetrates leaf tissues by translaminar movement. Paralyzes the Lepidoptera, which stop feeding within hours of ingestion, and die at last.

Uses

For control of Lepidoptera on vegetables, brassicas and cotton. Applied at 1.5-2.25g/ha.

1%EC characteristics:

Item	Index
Appearance	Even liquid
Content, %	≥ 1.0
a(B _{1a} /B _{1b})	≥ 20.0
Water, %	≤ 0.8
PH value	4.0-7.5

TC characteristics:

Item	Index
Appearance	White to light yellow powder
Content, %	≥ 79.1
a(B _{1a} /B _{1b})	≥ 20.0
Water, %	≤ 2.0
PH value	4.0-8.0
Acetone insoluble, %	≤ 0.5

Storage and transportation:

Put in a ventilated and dry place. Keep away from food, seed and feed. Do not touch eyes, skin and be absorbed by mouth and nose..