



Bioresmethrin

Pyrethroid, technical product

Common name

Bioresmethrin

Chemical name (IUPAC)

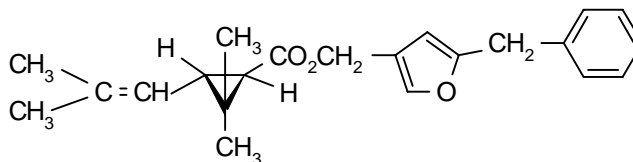
5-benzyl-3-furylmethyl (1*R*,3*R*)-2,2-dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxylate

Synonyms

d-resmethrin, NRDC 107, RU11484, AE F030356

Physico-chemical characteristics

CAS No.	28434-01-7
EINECS No.	249 01 40
Molecular formula	C ₂₂ H ₂₆ O ₃
Molecular weight	338.4
Composition	Minimum purity 93% total isomers (technical Bioresmethrin)
Appearance	Yellow to brown viscous liquid or off-white solid
Specific gravity	1.05 g/ml at 20°C
Stability	Stable at room temperature. Photolabile: keep away from direct light
Melting point	32°C
Flash point	92°C (closed cup)
Vapour pressure	18 mPa (25°C)
Solubility	Soluble in most organic solvents. Almost insoluble in water: < 0.3 mg/l (25°C)

Molecular formula**Toxicological characteristics**

Bioresmethrin is very slightly toxic for warm-blooded animals: studies have shown that this active product has a very low toxicity to mammals.

Acute oral LD ₅₀ in rats	4639 - 6091 mg/kg (depending on sex)
Acute dermal LD ₅₀ in rabbits	>2000 mg/kg
Acute inhalation LC ₅₀ (4h) in rats	>5.28 mg/l of air
Dermal / ocular irritation in rabbits	Non-irritant
Dermal sensitisation in guinea pigs	Non-sensitising

Ecotoxicological characteristics

Acute oral LD ₅₀ in chickens	>10,000 mg/kg
LC ₅₀ (96 h) rainbow trout	0.62 µg/l *
EC ₅₀ (48 h) <i>Daphnia</i>	0.8 µg/l

*Bioresmethrin poses no significant risk for the environment, at the recommended doses, due to its rapid degradation in real conditions.



SUMITOMO CHEMICAL

Use

Bioresmethrin is a photolabile pyrethroid insecticide with action by contact and ingestion; it induces death very efficiently and offers a very broad spectrum of activity; it provides control of numerous types of insects, even at low concentrations in household products such as domestic aerosols and liquid sprays, alone or in addition to a knockdown agent (such as: Etoc[®], Neo-Pynamin[®] Forte, Esbiol[®], Bioallethrine[®], or natural pyrethrins).

Bioresmethrin is effective against a wide variety of insects, such as:

- mosquitoes, houseflies, blowflies and other dipterous flies moths
- moths
- wasps, hornets
- cockroaches, earwigs, crickets, ants
- Coleoptera, Lepidoptera larvae
- aphids

Dosage recommendations

Liquid insecticides	0.07 to 0.25% w/w
Aerosols	0.07 to 0.25% w/w

Precautions for use

As with all insecticide active substances, it is important not to eat, drink or smoke when handling it, to wear suitable gloves and a respiratory mask to protect, in particular, the eyes and face and to avoid all contact with the product. Always refer to the **Safety Data Sheet**.

Precautions for storage

Keep out of reach of children.

Keep only in the original container in a cool, well-ventilated place away from air, light and humidity. Keep away from food, drink and animal feeding stuffs.

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Labelling

Bioresmethrin is classified:

N, R50/53

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Packaging

25 kg drums.

N.B.: Comply with the doses, conditions and precautions for use indicated on the packaging, which have been determined on the basis of the product characteristics and the applications for which it is recommended. On this basis, proceed with treatments according to good practice, taking into consideration, under your own responsibility, all the factors and specific conditions which may be involved and are outside our control (equipment used, application conditions, mixing of products, etc.).

The manufacturer guarantees the quality of its products sold in their original packaging, as well as their compliance with the formula indicated on the label.

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