

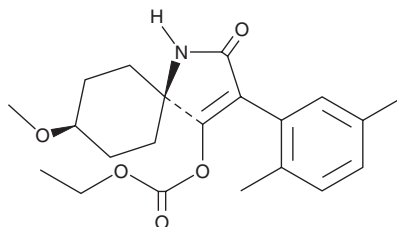
PRODUCT INFORMATION



Spirotetramat

Item No. 25634

CAS Registry No.: 203313-25-1
Formal Name: carbonic acid, *cis*-3-(2,5-dimethylphenyl)-8-methoxy-2-oxo-1-azaspiro[4.5]dec-3-en-4-yl ethyl ester
Synonym: BYI 8330
MF: C₂₁H₂₇NO₅
FW: 373.4
Purity: ≥90%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Spirotetramat is supplied as a solid. A stock solution may be made by dissolving the spirotetramat in the solvent of choice, which should be purged with an inert gas. Spirotetramat is slightly soluble in chloroform and methanol.

Description

Spirotetramat is an insecticide.¹ It is active against *C. pyri* nymphs *in vitro* (LC₅₀ = 6.51-12.53 mg AI/L) and induces mortality of *C. pyri* nymphs in European pear (*P. communis*) fields by 99.2% 15 days after application at a concentration of 27 g/hectare. Spirotetramat also reduces *O. insidiosus* embryonic viability and nymph survival.² It exhibits aquatic toxicity, increasing protein levels of glutathione peroxidase (GPX) and superoxide dismutase (SOD), decreasing levels of malondialdehyde (MDA), and inducing lethality in Chinese toad (*B. gargarizans*) tadpoles (LC₅₀ = 6.98 mg/L).³ Formulations containing spirotetramat have been used in the control of insects in agriculture.

References

1. Civolani, S., Boselli, M., Butturini, A., *et al.* Testing spirotetramat as an alternative solution to abamectin for *Cacopsylla pyri* (Hemiptera: Psyllidae) control: Laboratory and field tests. *J. Econ. Entomol.* **108**(6), 2737-2742 (2015).
2. Moscardini, V.F., da Costa Gontijo, P., Carvalho, G.A., *et al.* Toxicity and sublethal effects of seven insecticides to eggs of the flower bug *Orius insidiosus* (Say) (Hemiptera: Anthocoridae). *Chemosphere* **92**(5), 490-496 (2013).
3. Yin, X., Jiang, S., Yu, J., *et al.* Effects of spirotetramat on the acute toxicity, oxidative stress, and lipid peroxidation in Chinese toad (*Bufo bufo gargarizans*) tadpoles. *Environ. Toxicol. Pharmacol.* **37**(3), 1229-1235 (2014).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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