

S-Methoprene

Chemical Properties

CAS No.:	65733-16-6
Formula:	C ₁₉ H ₃₄ O ₃
Molecular Weight:	310.47
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	S-Methoprene is a juvenile insect growth hormone analog. It alters Ca ²⁺ signaling and redox activity of cytochrome oxidase and induces male sex differentiation.
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Solubility Information

Solubility	DMSO: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.221 mL	16.105 mL	32.209 mL
5 mM	0.644 mL	3.221 mL	6.442 mL
10 mM	0.322 mL	1.610 mL	3.221 mL
50 mM	0.064 mL	0.322 mL	0.644 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

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2. Dryden MW, Smith V, Davis WL, Settje T, Hostetler J. Evaluation and comparison of a flumethrin-imidacloprid collar and repeated monthly treatments of fipronil/(s)-methoprene to control flea, *Ctenocephalides f. felis*, infestations on cats for eight months. *Parasit Vectors.* 2016 May 17;9(1):287. doi: 10.1186/s13071-016-1575-5. PubMed PMID: 27189592; PubMed Central PMCID: PMC4869298.
3. Knaus M, Abu-Madi MA, Ibarra-Velarde F, Kok DJ, Kusi I, Postoli R, Chester ST, Rosentel J, Alva R, Irwin J, Visser M, Winter R, Rehbein S. Efficacy of a novel topical fipronil, (S)-methoprene, eprinomectin and praziquantel combination against naturally acquired intestinal nematode and cestode infections in cats. *Vet Parasitol.* 2014 Apr 28;202(1-2):18-25. doi: 10.1016/j.vetpar.2014.02.033. PubMed PMID: 24703071.
4. Rehbein S, Capári B, Duscher G, Keidane D, Kirkova Z, Petkevičius S, Rapti D, Wagner A, Wagner T, Chester ST, Rosentel J, Tielemans E, Visser M, Winter R, Kley K, Knaus M. Efficacy against nematode and cestode infections and safety of a novel topical fipronil, (S)-methoprene, eprinomectin and praziquantel combination product in domestic cats under field conditions in Europe. *Vet Parasitol.* 2014 Apr 28;202(1-2):10-7. doi: 10.1016/j.vetpar.2014.02.032. PubMed PMID: 24703070.

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