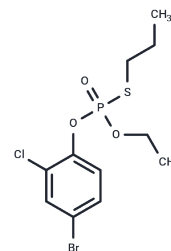


Profenofos

Chemical Properties

CAS No. :	41198-08-7
Formula:	C ₁₁ H ₁₅ BrClO ₃ PS
Molecular Weight:	373.63
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Profenofos is a broad-spectrum organophosphate insecticide used primarily for pest and mite control in cotton and vegetables. Profenofos causes neurotoxicity in insects and mites by interfering with nerve signaling through the inhibition of acetylcholinesterase (AChE) activity. Profenofos is relatively stable in the environment but breaks down rapidly under alkaline conditions.
Targets(IC50)	Cholinesterase (ChE)

Solubility Information

Solubility	H ₂ O: 4.27 mg/mL (11.43 mM), Sonication is recommended. DMSO: 257.5 mg/mL (689.18 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (26.76 mM), Suspension. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.35 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6764 mL	13.3822 mL	26.7644 mL
5 mM	0.5353 mL	2.6764 mL	5.3529 mL
10 mM	0.2676 mL	1.3382 mL	2.6764 mL
50 mM	0.0535 mL	0.2676 mL	0.5353 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Madhulika Kushwaha, et al. Kushwaha, M., et al.. Profenofos, an Acetylcholinesterase-Inhibiting Organophosphorus Pesticide: A Short Review of Its Usage, Toxicity, and Biodegradation. J Environ Qual.2016 Sep; 45(5):1478-1489.

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