# **Product** Data Sheet

## **Fenitrothion**

 Cat. No.:
 HY-B1885

 CAS No.:
 122-14-5

**Molecular Formula:**  $C_9H_{12}NO_5PS$ 

Molecular Weight: 277.23

Target: Parasite; Cholinesterase (ChE)

Pathway: Anti-infection; Neuronal Signaling

**Storage:** 4°C, stored under nitrogen

\* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)

#### **SOLVENT & SOLUBILITY**

In Vitro

Ethanol: 100 mg/mL (360.71 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.6071 mL	18.0356 mL	36.0711 mL
	5 mM	0.7214 mL	3.6071 mL	7.2142 mL
	10 mM	0.3607 mL	1.8036 mL	3.6071 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility:  $\geq$  2.5 mg/mL (9.02 mM); Clear solution
- 2. Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (9.02 mM); Clear solution

### **BIOLOGICAL ACTIVITY**

Description	Fenitrothion, one of the most widely used organophosphorus pesticides, is a cholinesterase inhibiting insecticide/acaricid. Fenitrothion is widely used, as a broad-spectrum insecticide, on cotton crops, vegetables crops, fruit crops, and field crops especially paddy. Fenitrothion leads to accumulation of nitrophenols <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	Mite

#### **REFERENCES**

[1]. Abdel-Ghany R, et al. Impact of Exposure to Fenitrothion on Vital Organs in Rats. J Toxicol. 2016;2016;5009734.

[2]. Qing Hong, et al. A micro Biodegradation	cosm study on bioremediatior	n of fenitrothion-contaminated s	oil using Burkholderia sp. FDS-1. Inter	rnational Biodeterioration &	
Caution: Product has not been fully validated for medical applications. For research use only.					
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