

Metrifonate

Chemical Properties

CAS No. : 52-68-6

Formula: C₄H₈Cl₃O₄P

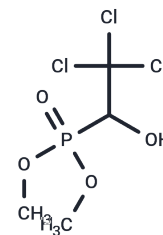
Molecular Weight: 257.44

Storage:

Store at low temperature, Keep away from moisture,
Keep away from direct sunlight

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Metrifonate is an organophosphorus prodrug that is metabolised non-enzymatically in the body to DDVP (dichlorvos), which acts as an irreversible cholinesterase (ChE) inhibitor. It inactivates ChE by phosphorylating the serine residue at its active site, making it useful for treating Alzheimer's disease and as an insecticide. Metrifonate affects AChE activity, oxidative stress, neurotoxicity, and cortisol levels in carp.
Targets(IC50)	Parasite, Cholinesterase (ChE)

Solubility Information

Solubility	H ₂ O: 20 mg/mL (77.69 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8844 mL	19.422 mL	38.844 mL
5 mM	0.7769 mL	3.8844 mL	7.7688 mL
10 mM	0.3884 mL	1.9422 mL	3.8844 mL
50 mM	0.0777 mL	0.3884 mL	0.7769 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

Williams BR. Metrifonate: a new agent for the treatment of Alzheimer's disease. Am J Health Syst Pharm. 1999 Mar 1;56(5):427-32.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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