

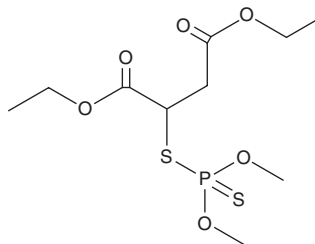
PRODUCT INFORMATION



Malathion

Item No. 22998

CAS Registry No.: 121-75-5
Formal Name: 2-[[dimethoxyphosphinothioyl]thio]-butanedioic acid, 1,4-diethyl ester
Synonym: NSC 6524
MF: C₁₀H₁₉O₆PS₂
FW: 330.4
Purity: ≥95%
Supplied as: An oil
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Malathion is supplied as an oil. A stock solution may be made by dissolving the malathion in the solvent of choice. Malathion is slightly soluble in chloroform.

Description

Malathion is an organophosphate insecticide that inhibits acetylcholinesterase (IC₅₀s = 370 and 160 μM for free and immobilized AChE, respectively, from bovine erythrocytes).¹ It is ovicidal and adulticidal to laboratory colonies of body lice when used at concentrations of 0.001 and 0.05%, respectively.² It is toxic to rats (LD₅₀ = 750 mg/kg) and teratogenic to zebrafish when used at concentrations ranging from 2 to 3 mg/L.^{3,4} Formulations containing malathion have been used in the treatment of lice.

References

1. Krstić, D.Z., Čolović, M., Kralj, M.B., *et al.* Inhibition of AChE by malathion and some structurally similar compounds. *J. Enzyme Inhib. Med. Chem.* **23**(4), 562-573 (2008).
2. Cole, M.M. and Burden, G.S. Phosphorus compounds as ovicides and adulticides against body lice. *J. Econ. Entomol.* **49**(6), 747-750 (1956).
3. DuBois, K.P., Doull, J., Deroin, J., *et al.* Toxicity and mechanism of action of some new insecticidal thionophosphates. *Arch. Ind. Hyg. Occup. Med.* **8**(4), 350-358 (1953).
4. Cook, L.W., Paradise, C.J., and Lom, B. The pesticide malathion reduces survival and growth in developing zebrafish. *Environ. Toxicol. Chem.* **24**(7), 1745-1750 (2005).

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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