

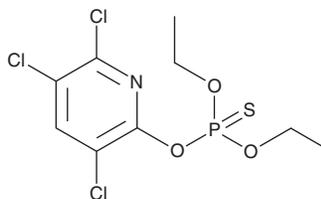
PRODUCT INFORMATION



Chlorpyrifos

Item No. 21412

CAS Registry No.: 2921-88-2
Formal Name: phosphorothioic acid O,O-diethyl
O-(3,5,6-trichloro-2-pyridinyl) ester
MF: C₉H₁₁Cl₃NO₃PS
FW: 350.6
Purity: ≥98%
UV/Vis.: λ_{max}: 230, 290 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Chlorpyrifos is supplied as a crystalline solid. A stock solution may be made by dissolving the chlorpyrifos in the solvent of choice. Chlorpyrifos is soluble in organic solvents such as chloroform, ethanol, ethyl acetate, and methanol.

Description

Chlorpyrifos is an organophosphate insecticide.^{1,2} It is lethal to *A. melinus*, *G. ashmeadi*, *E. eremicus*, and *E. formosa* adults (LC₅₀s = 0.8, 6, 12, and 17 ng/ml, respectively).¹ Chlorpyrifos induces mortality in *O. insidiosus* adults when applied to corn, sorghum, and alfalfa plants.² It is toxic to mice (LD₅₀ = 155 mg/kg).³ Postnatal day 11 to 14 exposure to chlorpyrifos (3 mg/kg) decreases nest building and defense behaviors in adult female mice.⁴ Formulations containing chlorpyrifos have been used in the control of insects in agriculture.

References

1. Prabhaker, N., Morse, J.G., Castle, S.J., et al. Toxicity of seven foliar insecticides to four insect parasitoids attacking citrus and cotton pests. *J. Econ. Entomol.* **100(4)**, 1053-1061 (2007).
2. Al-Deeb, M.A., Wilde, G.E., and Zhu, K.Y. Effect of insecticides used in corn, sorghum, and alfalfa on the predator *Orius insidiosus* (Hemiptera: Anthocoridae). *J. Econ. Entomol.* **94(6)**, 1353-1360 (2001).
3. Guo, J.-X., Wu, J.J.-Q., Wight, J.B., et al. Mechanistic insight into acetylcholinesterase inhibition and acute toxicity of organophosphorus compounds: A molecular modeling study. *Chem. Res. Toxicol.* **19(2)**, 209-216 (2006).
4. Venerosi, A., Cutuli, D., Colonnello, V., et al. Neonatal exposure to chlorpyrifos affects maternal responses and maternal aggression of female mice in adulthood. *Neurotoxicol. Teratol.* **30(6)**, 468-474 (2008).

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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