

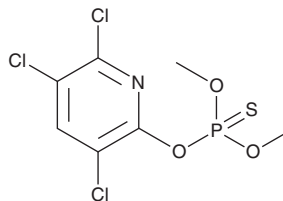
PRODUCT INFORMATION



Chlorpyrifos-methyl

Item No. 24227

CAS Registry No.: 5598-13-0
Formal Name: phosphorothioic acid O,O-dimethyl O-(3,5,6-trichloro-2-pyridinyl) ester
Synonym: OMS-1155
MF: C₇H₇Cl₃NO₃PS
FW: 322.5
Purity: ≥98%
Supplied as: A 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-methyl is supplied as a solid. A stock solution may be made by dissolving the chlorpyrifos-methyl in the solvent of choice, which should be purged with an inert gas. Chlorpyrifos-methyl is slightly soluble in chloroform.

Description

Chlorpyrifos-methyl is an organophosphate insecticide that induces 100, 100, 63, and 97.3% mortality of the adult stored-grain pests *L. bostrychophila*, *L. decolor*, *L. entomophila*, and *L. paeta*, respectively, when applied to grain at a dose of 10 mg/kg.¹ It also reduces the number of live progeny produced by *L. bostrychophila*, *L. decolor*, *L. entomophila*, and *L. paeta* by 100, 100, 30.4, and 41.1%, respectively, when applied to grain at a dose of 2.5 mg/kg. Chlorpyrifos-methyl (3 μM) reduces outgrowth of axon-like processes in mouse N2a neuroblastoma cells.² Administration of chlorpyrifos-methyl (4-100 mg/kg) to pregnant female mice decreases *H19* gene methylation in sperm as well as decreases anogenital distance and increases thymus and epididymis weights and serum testosterone levels in male offspring.³

References

1. Nayak, M.K. and Darglish, G.J. Combined treatments of spinosad and chlorpyrifos-methyl for management of resistant psocid pests (Psocoptera: *Liposcelididae*) of stored grain. *Pest Manag. Sci.* **63(1)**, 104-109 (2007).
2. Sachana, M., Flaskos, J., and Hargreaves, A.J. Effects of chlorpyrifos and chlorpyrifos-methyl on the outgrowth of axon-like processes, tubulin, and GAP-43 in N2a Cells. *Toxicol. Mech. Methods* **15(6)**, 405-410 (2005).
3. Shin, H.S., Seo, J.H., Jeong, S.H., et al. Effect on the *H19* gene methylation of sperm and organs of offspring after chlorpyrifos-methyl exposure during organogenesis period. *Environ. Toxicol.* **30(12)**, 1355-1363 (2015).

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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