

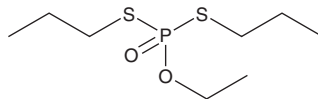
PRODUCT INFORMATION



Ethoprop

Item No. 27609

CAS Registry No.: 13194-48-4
Formal Name: phosphorodithioic acid, O-ethyl
S,S-dipropyl ester
Synonym: Ethoprophos
MF: C₈H₁₉O₂PS₂
FW: 242.3
Purity: ≥80%
UV/Vis.: λ_{max}: 230 nm
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

Ethoprop is supplied as an oil. A stock solution may be made by dissolving the ethoprop in the solvent of choice, which should be purged with an inert gas. Ethoprop is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ethoprop in ethanol is approximately 1.6 mg/ml and approximately 5 mg/ml in DMSO and DMF.

Description

Ethoprop is an organothiophosphate nematicide and insecticide.¹⁻³ It decreases the infectivity of *M. chitwoodi* and *M. hapla* second-stage juveniles (EC₅₀s = 5.6 and 6.8 µg/ml, respectively) and inhibits hatching of *M. chitwoodi* egg masses and *M. chitwoodi* and *M. hapla* free eggs (EC₅₀s = 0.2, 46, and 83.3 µg/ml, respectively).² Ethoprop (1.8 µg/g) decreases the number of *M. chitwoodi* nematodes in tomato roots when added to soil from fields without previous ethoprop exposure, but is biodegraded in soil from fields previously exposed to ethoprop. Ethoprop is toxic to rats via oral administration and dermal contact (LD₅₀s = 47 and 226 mg/kg, respectively) as well as inhalation (LD₅₀ = 0.123 mg/L).¹ It is also toxic to bluegill (LC₅₀ = 0.32 mg/L). Formulations containing ethoprop have been used in the agricultural control of pests.

References

1. European Food Safety Authority. Conclusion regarding the peer review of the pesticide risk assessment of the active substance ethoprophos. *EFSA Scientific Report* (2006).
2. Mojtahedi, H., Santo, G.S., and Pinkerton, J.N. Efficacy of ethoprop on *Meloidogyne hapla* and *M. chitwoodi* and enhanced biodegradation in soil. *J. Nematol.* **23**(4), 372-379 (1991).
3. Stewart, K.M. Chemical control of wireworms (Elateridae) in potatoes. *N. Z. J. Exp. Agr.* **9**(3-4), 357-362 (1981).

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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