

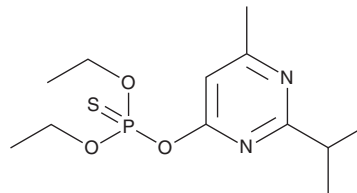
# PRODUCT INFORMATION



## Diazinon

Item No. 23769

**CAS Registry No.:** 333-41-5  
**Formal Name:** phosphorothioic acid, O,O-diethyl O-[6-methyl-2-(1-methylethyl)-4-pyrimidinyl] ester  
**Synonym:** NSC 8938  
**MF:** C<sub>12</sub>H<sub>21</sub>N<sub>2</sub>O<sub>3</sub>PS  
**FW:** 304.3  
**Purity:** ≥98%  
**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

Diazinon is supplied as an oil. A stock solution may be made by dissolving the diazinon in the solvent of choice, which should be purged with an inert gas. Diazinon is slightly soluble in chloroform.

### Description

Diazinon is an insecticide.<sup>1</sup> It is lethal to adult and larval beet webworms (LD<sub>50</sub>s = 0.15 and 464 mg/kg, respectively).<sup>2</sup> Diazinon (0.5, 1, and 2 mg/kg) decreases isolated brainstem and forebrain choline acetyltransferase activity, a marker for neurological development, in neonatal rats.<sup>3</sup> It is lethal to dogs when administered at doses ranging from 300-500 mg/kg.<sup>4</sup> Diazinon (5-50 mg/kg) induces cardiac hemorrhage, increases fatty areas in the pancreas, as well as decreases the thickness of the duodenum and jejunum, in pigs. Formulations containing diazinon have been used in the control of ticks, lice, and flies in agriculture.

### References

1. Earl, F.L., Melveger, B.E., Reinwall, J.E., *et al.* Diazinon toxicity-comparative studies in dogs and miniature swine. *Toxicol. Appl. Pharmacol.* **18(2)**, 285-295 (1971).
2. Leonova, I.N. and Slynko, N.M. Life stage variations in insecticidal susceptibility and detoxification capacity of the beet webworm, *Pyrausta sticticalis* L. (Lep., Pyralidae). *J. Appl. Entomol.* **128(6)**, 419-425 (2004).
3. Slotkin, T.A., Levin, E.D., and Seidler, F.J. Comparative developmental neurotoxicity of organophosphate insecticides: Effects on brain development are separable from systemic toxicity. *Environ. Health Perspect.* **114(5)**, 746-751 (2006).
4. Wang, X.-y., Gao, X.-m., Liu, H., *et al.* Gene expression profiling of the proliferative effect of periplocin on mouse cardiac microvascular endothelial cells. *Chin. J. Integr. Med.* **16(1)**, 33-40 (2010).

#### 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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