

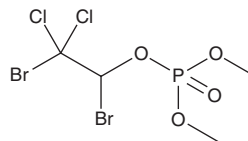
PRODUCT INFORMATION



Naled

Item No. 25783

CAS Registry No.: 300-76-5
Formal Name: phosphoric acid, 1,2-dibromo-2,2-dichloroethyl dimethyl ester
Synonym: Bromchlophos
MF: C₄H₇Br₂Cl₂O₄P
FW: 380.8
Purity: ≥98%
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

Naled is supplied as a crystalline solid. A stock solution may be made by dissolving the naled in the solvent of choice. Naled is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of naled in these solvents is approximately 30 mg/ml.

Naled is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, naled should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Naled has a solubility of approximately 0.2 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Naled is an organophosphate insecticide and acaricide that inhibits acetylcholinesterase (AChE) and butyrylcholinesterase (BChE).¹ It reduces the number of *A. sollicitans* mosquitos by 97% after one hour when aerially applied at a concentration of 0.1 pounds per acre.² Naled (125 ppm AI) induces 100 and 64% mortality of *T. telarius* adults and immature mites, respectively, in an immediate contact toxicity test but does not induce mortality in mite eggs.³ It is toxic to rats with an LD₅₀ value of 250 mg/kg.⁴ Formulations containing naled have been used in the control of mosquitoes in public areas and of crop-damaging insects in agriculture.

References

1. Herzsprung, P., Weil, L., and Niessner, R. Measurement of bimolecular rate constants k_i of the cholinesterase inactivation reaction by 55 insecticides and of the influence of various pyridiniumoximes on k_i . *Int. J. Environ. Anal. Chem.* **47(3)**, 181-200 (1992).
2. Knapp, F.W. and Rogers, C.E. Low volume aerial insecticide application for the control of *Aedes sollicit* and walker. *Mosquito News* **28(4)**, 535-540 (1968).
3. Mailloux, M. and Morrison, F.O. The effects of acaricides on the developmental stages of the two-spotted spider mite, *Tetranychu telarius*. *J. Econ. Entomol.* **55(4)**, 479-483 (1962).
4. Gaines, T.B. Acute toxicity of pesticides. *Toxicol. Appl. Pharmacol.* **14(3)**, 515-534 (1969).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/19/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM