Chemical Factsheet

Naled

General Information

- Fact Sheet: Naled.pdf
- Product Names:
  Dibrom (AMVAC)
  Trumpet (AMVAC)
  Fly Killer D (AMVAC)
  Prokil Naled (Gowan)
- Chemical Class: Organophosphate
- Uses: Control of mosquitoes, blackflies, aphids, mites
- Alternatives: Organic agriculture
- Beyond Pesticides rating: Toxic

Health and Environmental Effects

See citations at end of document.

- Cancer: Not documented
- Endocrine Disruption: Not documented
- Reproductive Effects: Yes (**1**)
- Neurotoxicity: Yes (**2**)
- Kidney/Liver Damage: Not documented
- Sensitizer/ Irritant: Yes (**2**)
- Birth/Developmental: Yes (**1**)
- Detected in Groundwater: Yes (**3**)
- Potential Leacher: Not documented
- Toxic to Birds: Yes (**3**)
- Toxic to Fish/Aquatic Organisms: Yes (**3**)
- Toxic to Bees: Yes (**3**, **1**)

Residential Uses as Found in the ManageSafe™ Database

- Cockroaches
- Mosquitoes

Additional Information

- Regulatory Status:
  - EPA Reregistration Eligibility Decision (RED) signed (07/2006)
  - EPA Factsheet (2002)
- Supporting information:
  - Beyond Pesticides' Letter to EPA (2016)
  - PAN Pesticides Database: Naled (Pesticide Action Network)
  - NCAP Factsheet (Northwest Coalition for Alternatives to Pesticides)
- Studies [compiled from the Pesticide-Induced Diseases Database]

- A pesticide and iPSC dopaminergic neuron screen identifies and classifies Parkinson-relevant pesticides. Paul, K.C., Krolewski, R.C., Lucumi Moreno, E., Blank, J., Holton, K.M., Ahfeldt, T., Furlong, M., Yu, Y., Cockburn, M., Thompson, L.K. and Kreymerman, A., 2023. Nature Communications, 14(1), p.2803.
- Persistence of aerially-sprayed naled in coastal sediments. Bamiduro, G. J., Kumar, N., Solo-Gabriele, H. M., & Zahran, E. M. (2021). Persistence of aerially-sprayed naled in coastal sediments. The Science of the total environment, 794, 148701. https://doi.org/10.1016/j.scitotenv.2021.148701
- Field Assessment of Naled and Its Primary Degradation Product (Dichlorvos) in Aquatic Ecosystems Following Aerial Ultra-low Volume Application for Mosquito Control. Smith, C.D., Hladik, M.L., Kuivila, K.M. et al. Field Assessment of Naled and Its Primary Degradation Product (Dichlorvos) in Aquatic Ecosystems Following Aerial Ultra-low Volume Application for Mosquito Control. Arch Environ Contam Toxicol 84, 307–317 (2023). https://doi.org/10.1007/s00244-023-00981-8
- Prenatal naled and chlorpyrifos exposure is associated with deficits in infant motor function in a cohort of Chinese infants. Silver, M. K., Shao, J., Zhu, B., Chen, M., Xia, Y., Kaciroti, N., Lozoff, B., & Meeker, J. D. (2017). Prenatal naled and chlorpyrifos exposure is associated with deficits in infant motor function in a cohort of Chinese infants. Environment international, 106, 248–256. https://doi.org/10.1016/j.envint.2017.05.015
- Acute toxicity and risk assessment of permethrin, naled, and dichlorvos to larval butterflies via ingestion of contaminated foliage. Hoang, T. C., & Rand, G. M. (2015). Acute toxicity and risk assessment of permethrin, naled, and dichlorvos to larval butterflies via ingestion of contaminated foliage. Chemosphere, 120, 714–721. https://doi.org/10.1016/j.chemosphere.2014.10.040
- Mosquito control insecticides: a probabilistic ecological risk assessment on drift exposures of naled, dichlorvos (naled metabolite) and permethrin to adult butterflies. Hoang, T. C., & Rand, G. M. (2015). Mosquito control insecticides: a probabilistic ecological risk assessment on drift exposures of naled, dichlorvos (naled metabolite) and permethrin to adult butterflies. The Science of the total environment, 502, 252–265. https://doi.org/10.1016/j.scitotenv.2014.09.027
- Monitoring the aquatic toxicity of mosquito vector control spray pesticides to freshwater receiving waters. Phillips, B. M., Anderson, B. S., Voorhees, J. P., Siegler, K., Denton, D., TenBrook, P., Larsen, K., Isorena, P., & Tjeerdema, R. S. (2014). Monitoring the aquatic toxicity of mosquito vector control spray pesticides to freshwater receiving waters. Integrated environmental assessment and management, 10(3), 449–455. https://doi.org/10.1002/ieam.1534
- Use of butterflies as nontarget insect test species and the acute toxicity and hazard of mosquito control insecticides. Hoang, T. C., Pryor, R. L., Rand, G. M., & Frakes, R. A. (2011). Use of butterflies as nontarget insect test species and the acute toxicity and hazard of mosquito control insecticides. Environmental toxicology and chemistry, 30(4), 997–1005. https://doi.org/10.1002/etc.462
- Temporal trends of agricultural organophosphate pesticide use in California and proximity to pregnant people in 2021. Rotkin-Ellman, M., Carpenter, C., Richardson, M.J. et al. Temporal trends of agricultural organophosphate pesticide use in California and proximity to pregnant people in 2021. BMC Public Health 25, 3121 (2025). https://doi.org/10.1186/s12889-025-23939-y

Gateway Health and Environmental Effects Citations

1. Pesticide Action Network Pesticide Database. http://www.pesticideinfo.org/Search_Chemicals.jsp.

2. Extension Toxicology Network (EXTOXNET) Pesticide Information Profiles.
http://extoxnet.orst.edu/pips/ghindex.html

3. US EPA, Office of Prevention, Pesticides and Toxic Substances, Reregistration Eligibility Decisions (REDs), Interim REDS (iREDs) and RED Factsheets.
https://archive.epa.gov/pesticides/reregistration/web/html/status.html.

Factsheet generated on May 17, 2026