

Chemical Factsheet

Phosmet

General Information

- Product Names:
 - Zoecon (Wellmark)
 - Imidan (Gowan)
 - Fireban fire ant insecticide (Gowam)
- Chemical Class: Organophosphorus
- Uses: Control fleas, lice, hornflies, sarcoptic mange, ticks.
- Alternatives: [Organic agriculture](#), [Least-toxic insect control](#)
- Beyond Pesticides rating: [Toxic](#)

Health and Environmental Effects

See citations at end of document.

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

Additional Information

- Regulatory Status:
 - [EPA Reregistration Eligibility Decision](#) (revised 03/2008)
- Supporting information:
 - [PAN Pesticides Database: Phosmet](#)
 - [Extension Toxicology Network \(EXTONET\)](#)
- Studies [compiled from the [Pesticide-Induced Diseases Database](#)]
 - [Prenatal pesticide exposure and childhood leukemia - A California statewide case-control study](#). Park, A.S., Ritz, B., Yu, F., Cockburn, M. and Heck, J.E., 2020. International journal of hygiene and environmental health, 226, p.113486.
 - [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. 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>.
2. Extension Toxicology Network (EXTOXNET) Pesticide Information Profiles.
<http://extoxnet.orst.edu/pips/ghindex.html>
3. Mineau, P., A. Baril, B.T. Collins , J. Duffe, G. Joerman, R. Luttik. 2001. Reference values for comparing the acute toxicity of pesticides to birds. Reviews of Environmental Contamination and Toxicology 170:13-74.
<http://web.archive.org/web/20081006213641/http://www.abcbirds.org/abcprograms/policy/pesticides/aims/aims/toxicitytable.cfm>

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