

Chemical Factsheet

Cyfluthrin

General Information

- Fact Sheets: [cyfluthrin.pdf](#), [Synthetic Pyrethroids.pdf](#)
- Product Names:
 - Lawn & Garden Multi Insect Killer Concentrate** (Bayer)
 - Ultrastop Home Insect Killer II** (Value Gardens)
 - Bug-B-Gon** (Scotts Company)
 - Baythroid** (Bayer)
 - Aztec** (Bayer), formulated with Phostebupirim
 - PT Cy-Kick** (BASF)
- Chemical Class: Synthetic pyrethroid insecticide
- Uses: Agriculture and food handling, Mosquito control
- Alternatives: [Organic agriculture](#), [Least-Toxics](#)
- Beyond Pesticides rating: [Toxic](#)

Health and Environmental Effects

See citations at end of document.

- Cancer: Not documented
- Endocrine Disruption: Possible (1, 2)
- Reproductive Effects: Yes (3)
- Neurotoxicity: Yes (3)
- Kidney/Liver Damage: Yes (3)
- Sensitizer/ Irritant: Yes (3, 4)
- Birth/Developmental: Likely (5)
- Detected in Groundwater: Not documented
- Potential Leacher: Not documented
- Toxic to Birds: Yes (6)
- Toxic to Fish/Aquatic Organisms: Yes (3)
- Toxic to Bees: Yes (3)

Residential Uses as Found in the ManageSafe™ Database

- [Bagworms](#)
- [Carpenter Ants](#)
- [Carpenter Bees](#)
- [Tree-boring Caterpillars](#)
- [Cockroaches](#)
- [Ants](#)
- [Bed Bugs](#)
- [Chinch Bugs](#)
- [Fleas](#)
- [Gypsy Moths](#)
- [Spiders](#)

- [Chiggers](#)
- [Grubs](#)
- [Termites](#)
- [Ticks](#)
- [Wasps and Yellowjackets](#)
- [Thrips](#)
- [Fire Ants](#)

Additional Information

- Regulatory Status:
 - [Beyond Pesticides' Tolerance Comments \(April 2026\)](#)
- Supporting information:
 - [Daily News Blog entries](#) (Beyond Pesticides)
 - [Asthma, Children and Pesticides](#) (Beyond Pesticides)
 - [NCAP Cyfluthrin Factsheet](#) (Northwest Coalition for Alternatives to Pesticides)
 - [Exttoxnet Cyfluthrin Factsheet](#) (Extension Toxicology Network)
 - [PAN Pesticides Database: Cyfluthrin](#) (Pesticide Action Network)
- Studies [compiled from the [Pesticide-Induced Diseases Database](#)]
 - [Common Pesticides Poison Homes](#) (Beyond Pesticides)
 - [Assessing Field-Scale Risks of Foliar Insecticide Applications to Monarch Butterfly \(*Danaus plexippus*\) Larvae](#). Krishnan, N., Zhang, Y., Bidne, K.G., Hellmich, R.L., Coats, J.R. and Bradbury, S.P., 2020. *Environmental Toxicology and Chemistry*, 39(4), pp.923-941.
 - [Pesticide residues in bee bread, propolis, beeswax and royal jelly – A review of the literature and dietary risk assessment](#). Végh, R., Csóka, M., Mednyánszky, Z. and Sipos, L., 2023. *Food and Chemical Toxicology*, p.113806.
 - [Pesticides: An alarming detriment to health and the environment](#). Kaur R;Choudhary D;Bali S;Bandral SS;Singh V;Ahmad MA;Rani N;Singh TG;Chandrasekaran B; Pesticides: An alarming detrimental to health and environment, *The Science of the total environment*. Available at: <https://www.ncbi.nlm.nih.gov/38232846/>
 - [Mixture effects of thiamethoxam and seven pesticides with different modes of action on honey bees \(*Apis mellifera*\)](#). Li, W. et al. (2023) Mixture effects of thiamethoxam and seven pesticides with different modes of action on honey bees (*Apis mellifera*), *Scientific Reports*. Available at: <https://www.nature.com/articles/s41598-023-29837-w#ref-CR30>.
 - [Pre-Conception And First Trimester Exposure To Pesticides And Associations With Stillbirth](#). Furlong, M. et al. (2024) Pre-conception and first trimester exposure to pesticides and associations with stillbirth, *American Journal of Epidemiology*. Available at: <https://academic.oup.com/aje/advance-article-abstract/doi/10.1093/aje/kwae198/7714541>
 - [Gestational Exposure to Cyfluthrin through Endoplasmic Reticulum \(ER\) Stress—Mediated PERK Signaling Pathway Impairs Placental Development](#). Ni, W. et al. (2022) Gestational exposure to cyfluthrin through endoplasmic reticulum (ER) stress-mediated perk signaling pathway impairs placental development, *Toxics*. Available at: <https://www.mdpi.com/2305-6304/10/12/733>.
 - [Cyfluthrin exposure during pregnancy causes neurotoxicity in offspring—Ca²⁺ overload via IP3R-GRP75-VDAC1 pathway](#). Haoxuan Gao, Mi Tian, Xiaozhe Geng, Ji Zhao, Yanan Song, Bing Wu, Xueyan Tian, Yong Yang, Wensi Ni, Huifang Yang, Cyfluthrin exposure during pregnancy causes neurotoxicity in offspring—Ca²⁺ overload via IP3R-GRP75-VDAC1 pathway, *Ecotoxicology and Environmental Safety*, Volume 274, 2024, 116218, ISSN 0147-6513, <https://doi.org/10.1016/j.ecoenv.2024.116218>.
 - [The effect of follicular fluid pesticides and polychlorinated biphenyls concentrations on](#)

- [intracytoplasmic sperm injection \(ICSI\) embryological and clinical outcome](#). Al-Hussaini, T. K., Abdelaleem, A. A., Elnashar, I., Shabaan, O. M., Mostafa, R., El-Baz, M. A. H., El-Deek, S. E. M., & Farghaly, T. A. (2018). The effect of follicular fluid pesticides and polychlorinated biphenyls concentrations on intracytoplasmic sperm injection (ICSI) embryological and clinical outcome. *European journal of obstetrics, gynecology, and reproductive biology*, 220, 39–43. <https://doi.org/10.1016/j.ejogrb.2017.11.003>
- [Seed coating with a neonicotinoid insecticide negatively affects wild bees](#). Rundlöf, M., Andersson, G., Bommarco, R. et al. Seed coating with a neonicotinoid insecticide negatively affects wild bees. *Nature* 521, 77–80 (2015). <https://doi.org/10.1038/nature14420>
 - [Assessment of genetic damage levels in agricultural workers exposed to pesticides in Paraíba, Brazil](#). Carvalho-Gonçalves, L. et al. (2025) Assessment of genetic damage levels in agricultural workers exposed to pesticides in Paraíba, Brazil, *Environmental Toxicology and Pharmacology*. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S1382668925000900>.
 - [Pyrethroid Exposure Reduces Growth and Development of Monarch Butterfly \(Lepidoptera: Nymphalidae\) Caterpillars](#). Annie J Krueger, Kathryn Hanford, Thomas J Weissling, Ana M Vélez, Troy D Anderson, Pyrethroid Exposure Reduces Growth and Development of Monarch Butterfly (Lepidoptera: Nymphalidae) Caterpillars, *Journal of Insect Science*, Volume 21, Issue 2, March 2021, 2, <https://doi.org/10.1093/jisesa/ieaa149>
 - [Urinary pesticide biomarkers from adolescence to young adulthood in an agricultural setting in Ecuador: Study of secondary exposure to pesticides among children, adolescents, and adults \(ESPINA\) 2016 and 2022 examination data](#). Parajuli, R. et al. (2025) Urinary pesticide biomarkers from adolescence to young adulthood in an agricultural setting in Ecuador: Study of secondary exposure to pesticides among children, adolescents, and adults (ESPINA) 2016 and 2022 examination data, *Data in Brief*. Available at: <https://www.sciencedirect.com/science/article/pii/S2352340925006067>.
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 - [Pyrethroid-induced cardiac Dysfunction: A systematic review and meta-analysis of preclinical evidence](#). Durço, A. et al. (2026) Pyrethroid-induced cardiac Dysfunction: A systematic review and meta-analysis of preclinical evidence, *Chemico-Biological Interactions*. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0009279726001389>.
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Gateway Health and Environmental Effects Citations

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