# Chemical Factsheet

## Tetramethrin

### General Information

- Fact Sheet: Synthetic Pyrethroids.pdf
- Product Names:
  **Enforcer Wasp & Yellow Jacket Foam** (Enforcer Products), formulated with Sumithrin
  **Deep 6 Wasp and Hornet Killer** (Speer Products), formulated with Piperonyl butoxide, Permethrin
  **Champion Fire Ant Killer** (Chase Products), formulated with Piperonyl butoxide, Permethrin
  **Hot Shot Indoor Fogger 3 with Odor Neutralizer** (Spectrum Brands), formulated with Permethrin
  **Mosquito B Gon Area Repellent** (Ortho Group), formulated with Permethrin
  **Raid Flea Killer Plus** (SC Johnson), formulated with Piperonyl butoxide, N-Octyl bicycloheptene dicarboximide (MGK 264), Pyrethrins, Sodium nitrite, d-Methoprene
- Chemical Class: Synthetic pyrethroid insecticide
- Uses: Targets insects such as wasps, hornets, roaches, ants, fleas, and mosquitoes in residential and industrial settings and rights-of-way
- Alternatives: Least-toxic Rights-of-way managment, Least-toxic mosquito control
- Beyond Pesticides rating: Toxic

### Health and Environmental Effects

*See citations at end of document.*

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

### Residential Uses as Found in the ManageSafe™ Database

- Cockroaches
- Fleas
- Wasps and Yellowjackets
- Chiggers

## Additional Information

- Studies [compiled from the Pesticide-Induced Diseases Database]
  - Exposure to pesticides, persistent and non − persistent pollutants in French 3.5-year-old children: Findings from comprehensive hair analysis in the ELFE national birth cohort. Macheka, L. et al. (2024) Exposure to pesticides, persistent and non − persistent pollutants in French 3.5-year-old children: Findings from comprehensive hair analysis in the ELFE national birth cohort, Environment International. Available at: https://www.sciencedirect.com/science/article/pii/S0160412024004677.
  - Subacute oral toxicity of combinations of selected synthetic pyrethroids, piperonyl butoxide, and tetramethrin in rats. Yavuz O, Aksoy A, Das YK, et al. (2013). Subacute oral toxicity of combinations of selected synthetic pyrethroids, piperonyl butoxide, and tetramethrin in rats. Toxicology and Industrial Health. https://journals.sagepub.com/doi/abs/10.1177/0748233712469651
  - Pesticide contamination in indoor home dust: A pilot study of non-occupational exposure in Argentina. Aparicio, Virginia & Kaseker, Jessica & Scheepers, Paul & Alaoui, Abdallah & Figueiredo, Daniel & Mol, H. & Silva, Vera & Harkes, Paula & dos Santos, Danilo & Geissen, Violette & Costa, José. (2025). Pesticide Contamination in Indoor Home Dust: A Pilot Study of Non-Occupational Exposure in Argentina. Environmental Pollution. 373. 126208. 10.1016/j.envpol.2025.126208.
  - Monitoring of Non-Maximum-Residue-Level Pesticides in Animal Feed: A Study from 2019 to 2023. Giugliano, R., Armenio, V., Savio, V., Vaccaro, E., Ciccotelli, V., & Vivaldi, B. (2024). Monitoring of Non-Maximum-Residue-Level Pesticides in Animal Feed: A Study from 2019 to 2023. Toxics, 12(9), 680. https://doi.org/10.3390/toxics12090680
  - 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.

## Gateway Health and Environmental Effects Citations


1. EPA weight-of-evidence category, "possible human carcinogen." US EPA, 2004. Office of Pesticide Programs. List of Chemicals Evaluated for Carcinogenic Potential. July 29, 2004. http://www.epa.gov/pesticides/carlist/

2. US EPA, 2000. Table 1: Toxicity Data by Category for Chemicals Listed under EPCRA Section 313. Toxic Release Inventory (TRI) Program. https://www.epa.gov/sites/production/files/documents/hazard_categories.pdf

3. Briggs, S.A. 1992. Basic Guide to Pesticides: Their Characteristics and Hazards. Washington, DC: The Rachel Carson Council, 98. https://www.cabdirect.org/cabdirect/abstract/19932334845

4. Yueh, MF et al. 2014. The commonly used antimicrobial additive triclosan is a liver tumor promoter. *PNAS* doi: 10.1073/pnas.141911911. *Triclosan promotes liver cancer cell development and proliferation in mice through pathways common to humans.*


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