

# Chemical Factsheet

## Allethrin

**(includes all allethrin stereoisomers: d-trans allethrin, bioallethrin, S-bioallethrin, d-cis/trans allethrin)**

### General Information

- Product Names:
  - Snake** (S.C. Johnson)
  - Konk** (AMREP) formulated with [Permethrin](#)
  - Unicorn** (Phaeton) formulated with [Permethrin](#)
  - Spira** (Zobele)
  - House & Garden Bug Killer** (Celex) formulated with [Permentrin](#)
  - Family Mosquito** (Family Products)
  - Buzz Buster** (Multinational Resources)
- Chemical Class: Pyrethroid
- Uses: Wasps and hornets, roaches, ants, fleas, and mosquitos, approved for residential, horticultural non food plants, commercial animal premise (indoor) misting systems
- Alternatives: [Least-Toxic Insecticide](#)
- Beyond Pesticides rating: [Toxic](#)

### Health and Environmental Effects

*See citations at end of document.*

- Cancer: Not documented
- Endocrine Disruption: Yes (1)
- Reproductive Effects: Not documented
- Neurotoxicity: Yes (2, 3, 4)
- Kidney/Liver Damage: Yes (2)
- Sensitizer/ Irritant: Yes (2)
- Birth/Developmental: Not documented
- Detected in Groundwater: Not documented
- Potential Leacher: No (5)
- Toxic to Birds: No (2)
- Toxic to Fish/Aquatic Organisms: Yes (2)
- Toxic to Bees: Yes (2)

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

- [Cockroaches](#)
- [Bed Bugs](#)
- [Mosquitoes](#)
- [Spiders](#)

## Additional Information

- Regulatory Status:
  - [EPA Reregistration Eligibility Decision \(RED\) signed](#) (6/2007)
  - [EPA Amended RED](#) (05/2009)
- Supporting information:
  - [Exttoxnet Pesticide Factsheet](#) (Extension Toxicology Network)
  - [PAN Pesticides Database](#): (Pesticide Action Network)
- Studies [compiled from the [Pesticide-Induced Diseases Database](#)]
  - [Mosquito repellent \(pyrethroid-based\) induced dysfunction of blood-brain barrier permeability in developing brain.](#) Sinha, C et al. 2004. *International Journal of Developmental Neuroscience*
  - [Morphological changes in the respiratory system of mice after inhalation of mosquito-coil smoke.](#) Cheng V, et al. 1992. *Toxicology letters*
  - [The action of allethrin on the peripheral nervous system of the frog.](#) Joep Van Den Bercken. 1976. *Pest Management Science*
  - [Allethrin toxicity causes reproductive dysfunction in male rats.](#) Madhubabu G, Yenugu S. 2017. *Environ Toxicol.* 32(6):1701-1710.
  - [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>
  - [Acute Toxicity Study Of D-trans Allethrin And D-phenothrin To Zebrafish, Danio Rerio And Its Human Relevance.](#) Hamid, Alif & Muhammad, Hussin & Lee, Siew Pien & Nik Hassan, Nik F. & Lokman, Isa. (2024). Acute Toxicity Study Of D-trans Allethrin And D-phenothrin To Zebrafish, Danio Rerio And Its Human Relevance. *Community practitioner: the journal of the Community Practitioners' & Health Visitors' Association*. 21. 243-250.
  - [Epilithic biofilms as bioindicators of water contamination by pesticides in Protected Areas from Atlantic Forest.](#) Mollmann, V. et al. (2026) Epilithic biofilms as bioindicators of water contamination by pesticides in Protected Areas from Atlantic Forest, *Science of The Total Environment*. Available at: <https://www.sciencedirect.com/science/article/pii/S0048969726003177>.
  - [Initial Survey of Pesticide Residues in Baby's food and The Exceedances of Maximum Residual Limit \(MRLs\).](#) Babalola, Oluwaseun & Raji, Ajoke. (2018). Initial Survey of Pesticide Residues in Baby's food and The Exceedances of Maximum Residual Limit (MRLs). *JOURNAL OF RESEARCH AND REVIEW IN SCIENCE*. 5. 10.36108/jrrslasu/8102/50(0102).

## Gateway Health and Environmental Effects Citations

1. Colborn, T., D. Dumanoski, and J.P. Myers. 1996. *Our Stolen Future: Are We Threatening Our Fertility, Intelligence, and Survival?* New York: Dutton. <http://ourstolenfuture.org/Basics/chemlist.htm>
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>.

4. Insecticide Resistance Action Committee (IRAC) eClassification of Chemical Mode of Action  
<http://www.irc-online.org/eClassification/>

5. National Library of Medicine. PubChem Hazardous Substances Database. [PubChem \(nih.gov\)](https://pubchem.ncbi.nlm.nih.gov/)

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