Chemical Factsheet

Indoxacarb

General Information

- Fact Sheet: Indoxacarb.pdf
- Product Names:
  Activyl (Intervet)
  Avaunt (Syngenta/Dupont)
  Advion (Syngenta/Dupont)
  Aperion (Syngenta/Dupont)
  Provaunt (Syngenta/Dupont)
  Steward (Syngenta/Dupont)
  Tomcat (Bell)
  Hyperactive (Reckitt)
  Mandible (Reckitt)
- Chemical Class: Oxadiazines
- Uses: Apples, pears, Brassica, sweet corn, lettuce and other fruiting vegetables, cotton, for control of lepidoptera pests (ie moths and butterflies) including the beet armyworm.
- Alternatives: Organic agriculture
- Beyond Pesticides rating: Toxic

Health and Environmental Effects

See citations at end of document.

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

Residential Uses as Found in the ManageSafe™ Database

- Ants
- Cockroaches

Additional Information

- Regulatory Status:
  - Conditional Registration EPA Fact Sheet (October 2000)

- Supporting information:
  - PAN Pesticide Database: Indoxacarb (Pesticide Action Network)
- Studies [compiled from the Pesticide-Induced Diseases Database]
  - Organic farming reduces pesticide load in a bird of prey. Fuentes, E. et al. (2024) Organic farming reduces pesticide load in a bird of prey, Science of The Total Environment. Available at: https://www.sciencedirect.com/science/article/pii/S0048969724029255.
  - A Th2-type immune response and low-grade systemic inflammatory reaction as potential immunotoxic effects in intensive agriculture farmers exposed to pesticides . Lozano-Paniagua, D. et al. (2024) 'A th2-type immune response and low-grade systemic inflammatory reaction as potential immunotoxic effects in intensive agriculture farmers exposed to pesticides', Science of The Total Environment, 938, p. 173545. doi:10.1016/j.scitotenv.2024.173545.
  - Systematic assessments of ecological and health risks of soil pesticide residues. Tang, T. et al. (2025) Systematic assessments of ecological and health risks of soil pesticide residues, Environmental Pollution. Available at: https://www.sciencedirect.com/science/article/abs/pii/S0269749125007213.
  - Toxicity of the insecticides spinosad and indoxacarb to the non-target aquatic midge Chironomus riparius. Monteiro, H. R., Pestana, J. L. T., Novais, S. C., Soares, A. M. V. M., & Lemos, M. F. L. (2019). Toxicity of the insecticides spinosad and indoxacarb to the non-target aquatic midge Chironomus riparius. The Science of the total environment, 666, 1283–1291. https://doi.org/10.1016/j.scitotenv.2019.02.303

Gateway Health and Environmental Effects Citations

1. U.S. EPA, Office of Prevention, Pesticides and Toxic Substances, New Active Ingredients Factsheets: http://web.archive.org/web/20120107215849/http://www.epa.gov/opprd001/factsheets/index.htm

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