Chemical Factsheet

Acetochlor

General Information

- Product Names:
  Suerstart (Dow) formulated with Clopyralid
  Fultime (Dow) formulated with Atrazine
  Keystone (Dow) formulated with Atrazine
  Volley (Tenkoz)
  Cadence (Loveland)
  Harness (Monsanto) formulated with Atrazine
  Tophand (Monsanto)
  Tremor (United Suppliers)
  Surpass (Dow)
  Breakfree (Dupont)
- Chemical Class: Chloroacetanilide herbicide
- Uses: Preemergent weed control on field corn and popcorn.
- Alternatives: Organic agriculture
- Beyond Pesticides rating: Toxic

Health and Environmental Effects

See citations at end of document.

- Cancer: Suggestive evidence (**1**, **2**)
- Endocrine Disruption: Yes (**3**, **4**)
- Reproductive Effects: Not documented
- Neurotoxicity: Yes (**1**)
- 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: Not documented
- Toxic to Fish/Aquatic Organisms: Yes (**1**)
- Toxic to Bees: Yes (**1**)

Additional Information

- Regulatory Status:
  - EPA Registration Documents
  - Drinking Water Treaability Database
- Supporting information:
  - Extoxnet pesticide Factsheet (Extension Toxicology Network)
  - CDC Biomonitoring Summary
  - PAN Pesticides Database: Acetochlor (Pesticide Action Network)
- Studies [compiled from the Pesticide-Induced Diseases Database]

- Autism: Transient in utero hypothyroxinemia related to maternal flavonoid ingestion during pregnancy and to other environmental antithyroid agents. Román, G, C. 2007. Journal of the Neurological Sciences; 262(1-2), pp 15-26
- A cocktail of contaminants: how mixtures of pesticides at low concentrations affect aquatic communities. Relyea R. A. (2009). A cocktail of contaminants: how mixtures of pesticides at low concentrations affect aquatic communities. Oecologia, 159(2), 363–376. https://doi.org/10.1007/s00442-008-1213-9
- Exposure to pesticides is correlated with gut microbiota alterations in a farmland raptor. Bariod, L. et al. (2025) Exposure to pesticides is correlated with gut microbiota alterations in a farmland raptor, Environment International. Available at: https://www.sciencedirect.com/science/article/pii/S0160412025001874.
- Occurrence of Current-Use Pesticides in Paired Indoor Dust, Drinking Water, and Urine Samples from the United States: Risk Prioritization and Health Implications. Xie, Y., Li, J., Salamova, A., & Zheng, G. (2025). Occurrence of Current-Use Pesticides in Paired Indoor Dust, Drinking Water, and Urine Samples from the United States: Risk Prioritization and Health Implications. Environmental science & technology, 59(25), 12507–12519. https://doi.org/10.1021/acs.est.5c00961
- Reduced birth weight in relation to pesticide mixtures detected in cord blood of full-term infants. Wickerham, Erin L et al. “Reduced birth weight in relation to pesticide mixtures detected in cord blood of full-term infants.” Environment international vol. 47 (2012): 80-5. doi:10.1016/j.envint.2012.06.007
- Association between pesticide exposure and colorectal cancer risk and incidence: A systematic review. Matich, E. K., Laryea, J. A., Seely, K. A., Stahr, S., Su, L. J., & Hsu, P. C. (2021). Association between pesticide exposure and colorectal cancer risk and incidence: A systematic review. Ecotoxicology and environmental safety, 219, 112327. https://doi.org/10.1016/j.ecoenv.2021.112327
- Pesticide Prioritization by Potential Biological Effects in Tributaries of the Laurentian Great Lakes. Oliver, S.K., Corsi, S.R., Baldwin, A.K., Nott, M.A., Ankley, G.T., Blackwell, B.R., Villeneuve, D.L., Hladik, M.L., Kolpin, D.W., Loken, L., DeCicco, L.A., Meyer, M.T. and Loftin, K.A. (2023), Pesticide Prioritization by Potential Biological Effects in Tributaries of the Laurentian Great Lakes. Environ Toxicol Chem, 42: 367-384. https://doi.org/10.1002/etc.5522
- Metabolome disruption of pregnant rats and their offspring resulting from repeated exposure to a pesticide mixture representative of environmental contamination in Brittany. Bonvallot N, Canlet C, Blas-Y-Estrada F, Gautier R, Tremblay-Franco M, Chevolleau S, et al. (2018) Metabolome disruption of pregnant rats and their offspring resulting from repeated exposure to a pesticide mixture representative of environmental contamination in Brittany. PLoS ONE 13(6): e0198448. https://doi.org/10.1371/journal.pone.0198448

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. California Environmental Protection Agency. Proposition 65: Chemicals Known to the State to Cause Cancer or Reproductive Toxicity. Office of Environmental Health Hazard Assessment. February 25, 2022.https://oehha.ca.gov/media/downloads/proposition-65//p65chemicalslistsinglelisttable2021p.pdf

3. 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

4. European Commission. Endocrine Disruptors: Study on Gathering Information on 435 Substances with Insufficient Data. Final Report. EU DG Environment: B4-3040/2001/325850/MAR/C2. BKH Consulting Engineers: M0355037. November 2002. http://ec.europa.eu/environment/chemicals/endocrine/pdf/bkh_report.pdf#page=76.

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