

# Chemical Factsheet

## Isoxaflutole

### General Information

- Product Names:  
BALANCE PRO  
EPIC DF  
CORVUS  
PREQUEL
- Chemical Class: Isoxazole herbicide
- Uses: For use on field corn for the control of annual broadleaf weeds
- Alternatives: Organic Agriculture
- Beyond Pesticides rating: [Toxic](#)

### Health and Environmental Effects

*See citations at end of document.*

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

### Additional Information

- Regulatory Status:
  - [EPA Factsheet](#)
  - [Petition for Determination of Nonregulated Status of Cotton Genetically Engineered for Resistance to Glyphosate and Isoxaflutole](#)
- Supporting information:
  - [Fluoride Action Network](#)
  - [WHO Review](#)
- Studies [compiled from the [Pesticide-Induced Diseases Database](#)]
  - [Scribner, E.A.et al. 2006. Occurrence of isoxaflutole, acetamide, and triazine herbicides and their degradation products in 10 Iowa Rivers draining to the Mississippi and Missouri Rivers, 2004. USGS Report 2006-5169, 84 p.](#)
  - [Tomkiel, M., Baćmaga, M., Borowik, A., Kucharski, J. and Wyszowska, J., 2019. Effect of a mixture of flufenacet and isoxaflutole on population numbers of soil-dwelling microorganisms, enzymatic activity of soil, and maize yield. \*Journal of Environmental\*](#)

[\*Science and Health, Part B, 54\(10\), pp.832-842.\*](#)

- [Impact of Endocrine Disrupting Pesticide Use on Obesity: A Systematic Review](#). Pérez-Bermejo, M. et al. (2024) Impact of Endocrine Disrupting Pesticide Use on Obesity: A Systematic Review, *Biomedicines*. Available at: <https://www.mdpi.com/2227-9059/12/12/2677>.
- [Currently used and legacy pesticides in the marine atmosphere from Patagonia to Europe](#). Debler, F., Gandrass, J., Paul Ramacher, M. O., Koenig, A. M., Zimmermann, S., & Joerss, H. (2025). Currently used and legacy pesticides in the marine atmosphere from Patagonia to Europe. *Environmental pollution (Barking, Essex : 1987)*, 373, 126175. Advance online publication. <https://doi.org/10.1016/j.envpol.2025.126175>

## Gateway Health and Environmental Effects Citations

1. Reuter, W., 2019. Toxicology of glyphosate, isoxaflutole, dicamba and possible combination effects. *Testbiotech*. [www.testbiotech.org/sites/default/files/Tox\\_Evaluation\\_Glyphosate\\_Dicamba\\_Isoxaflutole.pdf](http://www.testbiotech.org/sites/default/files/Tox_Evaluation_Glyphosate_Dicamba_Isoxaflutole.pdf). Accessed 2020.
2. Mesnage, R., Biserni, M., Wozniak, E., Xenakis, T., Mein, C.A. and Antoniou, M.N., 2018. Comparison of transcriptome responses to glyphosate, isoxaflutole, quizalofop-p-ethyl and mesotrione in the HepaRG cell line. *Toxicology reports*, 5, pp.819-826. <https://doi.org/10.1016/j.toxrep.2018.08.005>
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. Office of Prevention, Pesticides and Toxic Substances, 1998. Memorandum - Isoxaflutole. Environmental Protection Agency. [https://www3.epa.gov/pesticides/chem\\_search/cleared\\_reviews/csr\\_PC-123000\\_5-Feb-98\\_a.pdf](https://www3.epa.gov/pesticides/chem_search/cleared_reviews/csr_PC-123000_5-Feb-98_a.pdf). Accessed 2020.
5. Melo, C.A.D., Medeiros, W.N., Santos, L.T., Ferreira, F.A., Tiburcio, R.A.S. and Ferreira, L.R., 2010. Leaching of sulfentrazone, isoxaflutole and oxyfluorfen in three soil profiles. *Planta Daninha*, 28(2), pp.385-392. [10.1590/S0100-83582010000200018](https://doi.org/10.1590/S0100-83582010000200018)

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