

Chemical Factsheet

Fluopyram

General Information

- Product Names:
 - LUNA PRIVILEGE
 - PROPULSE
 - LUNA SENSATION
 - LUNA TRANQUILITY
 - Velum Total
- Chemical Class: Pyridinyl-ethybenzamide fungicide
- Uses: Agriculture, greenhouses, drip irrigation
- Beyond Pesticides rating: [Toxic](#)

Health and Environmental Effects

See citations at end of document.

- Cancer: Yes (1, 2)
- Endocrine Disruption: Yes (1)
- Reproductive Effects: Not documented
- Neurotoxicity: Not documented
- 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: Not documented

Additional Information

- Regulatory Status:
 - [EPA Regulatory Documents](#)
 - [EPA Fluopyram Final Work Plan](#) (June 2022)
- Supporting information:
 - [PAN Pesticides Database: Fluopyram](#) (Pesticide Action Network)
- Studies [compiled from the [Pesticide-Induced Diseases Database](#)]
 - [Direct pesticide exposure of insects in nature conservation areas in Germany](#). Brühl, C.A., Bakanov, N., Köthe, S., Eichler, L., Sorg, M., Hörrn, T., Mühlethaler, R., Meinel, G. and Lehmann, G.U. Scientific reports, 11(1), pp.1-10.
 - [Flooding as a Vector for the Transport of Pesticides from Streams to Riparian Plants](#). Fiolka, F. et al. (2024) Flooding as a Vector for the Transport of Pesticides from Streams to Riparian Plants, American Chemical Society ES&T Water. Available at: <https://pubs.acs.org/doi/abs/10.1021/acsestwater.4c00571>.
 - [Uptake and distribution of fluopyram and tebuconazole residues in tomato and bell](#)

- [pepper plant tissues](#). Matadha, N.Y. et al. (2019) Uptake and distribution of fluopyram and tebuconazole residues in tomato and bell pepper plant tissues, *Environmental Science and Pollution Research*. Available at: <https://link.springer.com/article/10.1007/s11356-018-04071-4>.
- [Current-use pesticides in vegetation, topsoil and water reveal contaminated landscapes of the Upper Rhine Valley, Germany](#). Mauser, K.M., Wolfram, J., Spaak, J.W. et al. Current-use pesticides in vegetation, topsoil and water reveal contaminated landscapes of the Upper Rhine Valley, Germany. *Commun Earth Environ* 6, 166 (2025). <https://doi.org/10.1038/s43247-025-02118-2>
 - [Distribution of fluopyram and tebuconazole in pomegranate tissues and their risk assessment](#). Yogendraiah Matadha, N., Mohapatra, S., & Siddamallaiah, L. (2021). Distribution of fluopyram and tebuconazole in pomegranate tissues and their risk assessment. *Food chemistry*, 358, 129909. <https://doi.org/10.1016/j.foodchem.2021.129909>
 - [Oxidative stress, intestinal damage, and cell apoptosis: Toxicity induced by fluopyram in *Caenorhabditis elegans*](#). Liu, Y., Zhang, W., Wang, Y., Liu, H., Zhang, S., Ji, X., & Qiao, K. (2022). Oxidative stress, intestinal damage, and cell apoptosis: Toxicity induced by fluopyram in *Caenorhabditis elegans*. *Chemosphere*, 286(Pt 3), 131830. <https://doi.org/10.1016/j.chemosphere.2021.131830>
 - [Fluopyram activates systemic resistance in soybean](#). Rocha, L. F., Subedi, A., Pimentel, M. F., Bond, J. P., & Fakhoury, A. M. (2022). Fluopyram activates systemic resistance in soybean. *Frontiers in plant science*, 13, 1020167. <https://doi.org/10.3389/fpls.2022.1020167>
 - [The Fate of Fluopyram in the Soil-Water-Plant Ecosystem: A Review](#). Rathod, P.H., Shah, P.G., Parmar, K.D. et al. The Fate of Fluopyram in the Soil-Water-Plant Ecosystem: A Review. *Reviews Env.Contamination (formerly:Residue Reviews)* 260, 1 (2022). <https://doi.org/10.1007/s44169-021-00001-7>
 - [Combined toxicity of trifloxystrobin and fluopyram to zebrafish embryos and the effect on bone development](#). Zhang, T., Yuan, J., Guo, Y., Wang, X., Li, Q. X., Zhang, J., Xie, J., Miao, W., & Fan, Y. (2024). Combined toxicity of trifloxystrobin and fluopyram to zebrafish embryos and the effect on bone development. *Aquatic toxicology (Amsterdam, Netherlands)*, 268, 106834. <https://doi.org/10.1016/j.aquatox.2024.106834>
 - [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>
 - [Insights into the chronic toxicity and mechanisms of fluorine-containing pesticides on earthworms](#). Shan, D. et al. (2025) Insights into the chronic toxicity and mechanisms of fluorine-containing pesticides on earthworms, *Environmental Toxicology and Pharmacology*. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S1382668925001863>.
 - [Honey bee hives as biomonitors of pesticide environmental pollution. The INSIGNIA-EU monitoring action](#). Fernández-Alba, A. et al. (2025) Honey bee hives as biomonitors of pesticide environmental pollution. The INSIGNIA-EU monitoring action, *Science of The Total Environment*. Available at: <https://www.sciencedirect.com/science/article/pii/S0048969725019254>.
 - [Flood-borne pesticides are transferred from riparian soil via plants to phytophagous aphids](#). Fiolka, F., Fuchs, T., Roodt, A. P., Manfrin, A., & Schulz, R. (2025). Flood-borne pesticides are transferred from riparian soil via plants to phytophagous aphids. *Chemosphere*, 377, 144355. <https://doi.org/10.1016/j.chemosphere.2025.144355>

- [Flood Frequency and Duration Drive the Aquatic-Terrestrial Pesticide Transfer to Riparian Root-Zone Soil: A Mesocosm Study](https://link.springer.com/article/10.1007/s00244-026-01190-9). Fiolka, F. et al. (2026) Flood Frequency and Duration Drive the Aquatic-Terrestrial Pesticide Transfer to Riparian Root-Zone Soil: A Mesocosm Study, Archives of Environmental Contamination and Toxicology. Available at: <https://link.springer.com/article/10.1007/s00244-026-01190-9>.

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. Pesticide Action Network Pesticide Database. http://www.pesticideinfo.org/Search_Chemicals.jsp.

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