

Chemical Factsheet

Penoxsulam

General Information

- Product Names:
 - Grasp** (Dow)
 - Granite** (Dow)
 - Sapphire** (Dow)
 - Pindar** (Dow)
 - Galleon** (Sepro)
- Uses: Aquatic Vegetation
- Beyond Pesticides rating:

Health and Environmental Effects

See citations at end of document.

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

Additional Information

- Regulatory Status:
 - [Penoxsulam; Federal Register Pesticide Tolerance](#) (2020)
 - [EPA Pesticide Factsheet](#) (2004)
- Supporting information:
 - [National Center for Biotechnology Information, PubChem Compound Database](#)
 - [PAN Pesticides Database:Penoxsulam](#) (Pesticide Action Network)
- Studies [compiled from the [Pesticide-Induced Diseases Database](#)]
 - [Enhanced Herbicide Metabolism and Target Site Mutation Enabled the Multiple Resistance to Cyhalofop-butyl, Florpyrauxifen-benzyl, and Penoxsulam in Echinochloa crus-galli](#). Yu, X. et al. (2024) Enhanced Herbicide Metabolism and Target Site Mutation Enabled the Multiple Resistance to Cyhalofop-butyl, Florpyrauxifen-benzyl, and Penoxsulam in Echinochloa crus-galli, Journal of Agricultural and Food Chemistry. Available at: <https://pubs.acs.org/doi/abs/10.1021/acs.jafc.4c02450>.
 - [The non-target site resistance mechanism to Penoxsulam in Echinochloa crus-galli var. zelayensis](#). Lyu, Q., Jiang, B., He, P. et al. The non-target site resistance mechanism to

Penoxsulam in *Echinochloa crus-galli* var. *zelayensis*. *Plant Soil* (2024).

<https://doi.org/10.1007/s11104-024-06716-5>

- [Biochemical and Histological Evaluation of Penoxsulam Herbicide on an Animal Model](#). Chaurasia, V., Aggarwal, M. and Garg, M. (2022) Biochemical and Histological Evaluation of Penoxsulam Herbicide on an Animal Model, *Journal of Pharmaceutical Research International*. Available at: https://www.researchgate.net/publication/358594997_Biochemical_and_Histological_Evaluation_of_Penoxsulam_Herbicide_on_an_Animal_Model.
- [Acute Renal Failure following Penoxsulam poisoning](#). Karunatilake, H. (2011). Acute Renal Failure following Penoxsulam poisoning. *Clinical Toxicology*, 50(1), 79. <https://doi.org/10.3109/15563650.2011.633492>
- [Toxic Effects of Penoxsulam Herbicide in Two Fish Species Reared in Southern Brazil](#). Murussi, C.R., Thorstenberg, M.L., Leitemperger, J. et al. Toxic Effects of Penoxsulam Herbicide in Two Fish Species Reared in Southern Brazil. *Bull Environ Contam Toxicol* 92, 81–84 (2014). <https://doi.org/10.1007/s00128-013-1137-x>

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. National Center for Biotechnology Information, PubChem Compound Database. Available at:

<https://pubchem.ncbi.nlm.nih.gov/>.

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