Chemical Factsheet

Oryzalin

General Information

- Fact Sheet: Oryzalin.pdf
- Product Names:
  Lilly/Miller Weed & Grass Preventer (Central Garden & Pet)
  Ferti-Lome Weed and Feed Special (Voluntary Purchasing Group), formulated with Benefin
  Vertagreen Pre-Emergence Weed & Feed (United Industries), formulated with Benefin
  Pro-Teck (Howard Johnson's Enterprises)
  XL2G (Setre Chemical), formulated with Benefin
- Chemical Class: Dinitroaniline sulfonamide herbicide
- Uses: Control of annual grasses, broadleaf weeds, woody shrubs and vines in grapes, berries and orchard crops, fruits nuts; residential and commercial/industrial lawns and turf, golf course turf, ornamentals and shade trees, Christmas tree plantations, fencerows/hedgerows, nonagricultural rights-of-way, and uncultivated areas including patios, paths, paved areas and power stations.
- Alternatives: Organic agriculture, Organic lawn care, Organic christmas trees, Least-toxic rights-of-way managment
- Beyond Pesticides rating: Toxic

Health and Environmental Effects

See citations at end of document.

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

Residential Uses as Found in the ManageSafe™ Database

- Crabgrass
- Knotweed
- Chickweed

Additional Information

- Regulatory Status:
  - EPA Reregistration Eligibility Decision (RED) signed (9/1994)
- Supporting information:
  - NCAP Oryzalin Factsheet (Northwest Coalition for Alternatives to Pesticides)
  - Extoxnet Oryzalin Factsheet (Extension Toxicology Network)
  - PAN Pesticides Database:Oryzalin (Pesticide Action Network)
- Studies [compiled from the Pesticide-Induced Diseases Database]
  - Oryzalin impairs maternal-fetal interaction during early pregnancy via ROS-mediated P38 MAPK/AKT and OXPHOS downregulation. Jiyeon Ham, Jisoo Song, Gwonhwa Song, Whasun Lim, Oryzalin impairs maternal-fetal interaction during early pregnancy via ROS-mediated P38 MAPK/AKT and OXPHOS downregulation, Food and Chemical Toxicology, Volume 174, 2023, 113665, ISSN 0278-6915, https://doi.org/10.1016/j.fct.2023.113665.
  - Mechanisms of female reproductive toxicity in pigs induced by exposure to environmental pollutants. Junho Park, Hojun Lee, Junhun Kweon, Sunwoo Park, Jiyeon Ham, Fuller W. Bazer, Gwonhwa Song, Mechanisms of female reproductive toxicity in pigs induced by exposure to environmental pollutants, Molecules and Cells, Volume 47, Issue 5, 2024, 100065, ISSN 1016-8478, https://doi.org/10.1016/j.mocell.2024.100065.

Gateway Health and Environmental Effects Citations

1. US EPA, 2000. Table 1: Toxicity Data by Category for Chemicals Listed under EPCRA Section 313. Toxic Release Inventory (TRI) Program.
https://www.epa.gov/sites/production/files/documents/hazard_categories.pdf

2. 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.

3. Beyond Pesticides ChemWatch Factsheets. (Cited under factsheets on Beyond Pesticides Gateway; see top of individual chemical page)

4. Extension Toxicology Network (EXTOXNET) Pesticide Information Profiles.
http://extoxnet.orst.edu/pips/ghindex.html

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