# Chemical Factsheet

## Mancozeb

### General Information

- Product Names:
  **Ridomil** (Syngenta) forumulated with Metalaxyl-M
  **Maxim** (Syngenta) fomulated with Fludioxonil
  **Acrobat** (BASF) formulated with Dimethomorph
  **Stature** (BASF) formulated with Dimethomorph
  **Grain Guard** (Chemtura)
  **Moncoat** (Gowan) formulated with Flutolanil
  **Gavel** (Gowan) formulated with Zoxamide
  **Dithane** (Dow)
  **Penncozeb** (United Phosphorus)
- Chemical Class: ethylene bisdithiocarbamate (EBDC) fungicide
- Uses: Fungicide used in agriculture, professional turf management, and horticulture, on a wide variety of food/feed crops, including tree fruits, vegetable crops, field crops and grapes, ornamental plants, and sod farms. Other uses include greenhouse grown flowers and ornamentals, and seed and seed piece treatment.
- Alternatives: Organic agriculture
- Beyond Pesticides rating: Toxic

### Health and Environmental Effects

*See citations at end of document.*

- Cancer: Yes (**1**)
- Endocrine Disruption: Yes (**2**, **3**)
- Reproductive Effects: Not documented
- Neurotoxicity: Not documented
- Kidney/Liver Damage: Not documented
- Sensitizer/ Irritant: Yes (**4**)
- Birth/Developmental: Yes (**4**)
- Detected in Groundwater: Not documented
- Potential Leacher: Not documented
- Toxic to Birds: Not documented
- Toxic to Fish/Aquatic Organisms: Yes (**5**)
- Toxic to Bees: Yes (**6**)

### Residential Uses as Found in the ManageSafe™ Database

- Mold

### Additional Information

- Regulatory Status:
  - Beyond Pesticides' Comments (October 2024)

    - EPA Reregistration Eligibility Decision (RED) signed (9/2005)
    - EPA Factsheet (9/2005)
- Supporting information:
    - Extoxnet Mancozeb Factsheet (Extension Toxicology Network)
    - PAN Pesticides Database - Mancozeb (Pesticide Action Network)
- Studies [compiled from the Pesticide-Induced Diseases Database]
    - Top 15 Farmworker Poison
    - Adverse effects on sexual development in rat offspring after low dose exposure to a mixture of endocrine-disrupting pesticides.. Hass U, Boberg J, Christiansen S, Jacobsen PR, et al. 2012. Reprod Toxicol.34(2):261-74
    - 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
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    - Haematological and biochemical toxicity in freshwater fish Clarias gariepinus and Oreochromis niloticus following pulse exposure to atrazine, mancozeb, chlorpyrifos, lambda-cyhalothrin, and their combination. Kanu, K.C., Okoboshi, A.C. and Otitoloju, A.A., 2023. Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology, 270, p.109643.
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    - Impact of Endocrine Disrupting Pesticide Use on Obesity: A Systematic Review. Pérez-

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## Gateway Health and Environmental Effects Citations

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