

Chemical Factsheet

Chlorothalonil

General Information

- Fact Sheet: [Chlorothalonil.pdf](#)
- Product Names:
 - Bonide Fung Onil Multi Purpose Fungicide Ready to Use** (Bonide Products)
 - Ortho Multi Purpose Fungicide Daconil 2787 Plant Disease Control** (Solaris Group), formulated with Propylene glycol
 - Duron Weathershield Exterior Acrylic Semi Gloss, Accent Base** (Duron), formulated with Ethylene glycol, Diethylene glycol monobutyl ether, Kaolin clay, Titanium dioxide, Acrylic resin(s), Crystalline silica
 - Ortho Garden Disease Control Concetrate** (Ortho Group)
 - Instrata** (Syngenta), formulated with Propiconazole, Fludioxonil
- Chemical Class: Organochlorine fungicide
- Uses: Agricultural crops, Christmas trees, turf and golf course, residential lawns, adhesive and grout additive, paint preservative, wood treatment
- Alternatives: [Agriculture](#), [Ornamental/Lawn](#)
- Beyond Pesticides rating: [Toxic](#)

Health and Environmental Effects

See citations at end of document.

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

Additional Information

- Regulatory Status:
 - [EPA Reregistration Eligibility Decision \(RED\) signed](#) (9/1998)
 - New York tolerance [petition](#)
- Supporting information:
 - [Daily News Blog entries](#) (Beyond Pesticides)
 - [Asthma, Children and Pesticides](#) (Beyond Pesticides)
 - [NCAP Chlorothalonil Factsheet](#) (Northwest Coalition for Alternatives to Pesticides)
 - [Exttoxnet Chlorothalonil Factsheet](#) (Extension Toxicology Network)

- [PAN Pesticides Database:Chlorothalonil](#) (Pesticide Action Network)
- Studies [compiled from the [Pesticide-Induced Diseases Database](#)]
 - [Long-term effects of neonicotinoid insecticides on ants](#). Schläppi, D., Kettler, N., Straub, L., Glauser, G. and Neumann, P., 2020. *Communications biology*, 3(1), pp.1-9.
 - [Assessing Field-Scale Risks of Foliar Insecticide Applications to Monarch Butterfly \(*Danaus plexippus*\) Larvae](#). Krishnan, N., Zhang, Y., Bidne, K.G., Hellmich, R.L., Coats, J.R. and Bradbury, S.P., 2020. *Environmental Toxicology and Chemistry*, 39(4), pp.923-941.
 - [Human exposure and risk assessment to airborne pesticides in a rural French community](#). Coscollà C, López A, Yahyaoui A, Colin P, et al. 2017. *Sci Total Environ*. 584-585:856-868
 - [Immune response of Brazilian farmers exposed to multiple pesticides](#). Jacobsen-Pereira, C.H. et al. (2020) 'Immune response of Brazilian farmers exposed to multiple pesticides', *Ecotoxicology and Environmental Safety*, 202, p. 110912. doi:10.1016/j.ecoenv.2020.110912.
 - [Toxicity of pesticides toward human immune cells U-937 and HL-60](#). Barbasz, A. et al. (2020) 'Toxicity of pesticides toward human immune cells U-937 and HL-60', *Journal of Environmental Science and Health, Part B*, 55(8), pp. 719-725. doi:10.1080/03601234.2020.1777059.
 - [Pesticide-Induced Inflammation at a Glance](#). Lopes-Ferreira, M. et al. (2023) 'Pesticide-induced inflammation at a glance', *Toxics*, 11(11), p. 896. doi:10.3390/toxics11110896.
 - [Lethal, sublethal, and combined effects of pesticides on bees: A meta-analysis and new risk assessment tools](#). Tosi, S., Sfeir, C., Carnesecchi, E., vanEngelsdorp, D., & Chauzat, M. P. (2022). Lethal, sublethal, and combined effects of pesticides on bees: A meta-analysis and new risk assessment tools. *The Science of the total environment*, 844, 156857. <https://doi.org/10.1016/j.scitotenv.2022.156857>
 - [Current-use pesticide transport to Costa Rica's high-altitude tropical cloud forest](#). Chubashini Shunthirasingham, Todd Gouin, Ying D Lei, Clemens Ruepert, Luisa E Castillo, Frank Wania, Current-use pesticide transport to Costa Rica's high-altitude tropical cloud forest, *Environmental Toxicology and Chemistry*, Volume 30, Issue 12, 1 December 2011, Pages 2709-2717, <https://doi.org/10.1002/etc.671>
 - [Chlorothalonil exposure impacts larval development and adult reproductive performance in *Drosophila melanogaster*](#). Dissawa Darshika M., Boyer Ines and Ponton Fleur 2025 Chlorothalonil exposure impacts larval development and adult reproductive performance in *Drosophila melanogaster* R. Soc. Open Sci.12250136 <http://doi.org/10.1098/rsos.250136>
 - [Interactive effects of chlorothalonil and *Varroa destructor* on *Apis mellifera* during adult stage](#). Wu, Tong et al. "Interactive effects of chlorothalonil and *Varroa destructor* on *Apis mellifera* during adult stage." *Pesticide biochemistry and physiology* vol. 204 (2024): 106107. doi:10.1016/j.pestbp.2024.106107
 - [Pesticide transformation products: a potential new source of interest for drinking water](#). Pasquini, L., Lardy-Fontan, S. and Rosin, C. (2025) Pesticide transformation products: a potential new source of interest for drinking water, *Environmental Science and Pollution Research*. Available at: <https://link.springer.com/article/10.1007/s11356-025-35979-3>.
 - [Pesticide Prioritization by Potential Biological Effects in Tributaries of the Laurentian Great Lakes](#). Oliver, S.K., Corsi, S.R., Baldwin, A.K., Nott, M.A., Ankley, G.T., Blackwell, B.R., Villeneuve, D.L., Hladik, M.L., Kolpin, D.W., Loken, L., DeCicco, L.A., Meyer, M.T. and Loftin, K.A. (2023), Pesticide Prioritization by Potential Biological Effects in Tributaries of the Laurentian Great Lakes. *Environ Toxicol Chem*, 42: 367-384. <https://doi.org/10.1002/etc.5522>
 - [Spatial and Temporal Distribution of Current-Use Pesticides in Atmospheric Particulate Matter in Houston, Texas](#). Clark, A.E., Yoon, S., Sheesley, R.J. et al. Spatial and Temporal Distribution of Current-Use Pesticides in Atmospheric Particulate Matter in Houston,

Texas. Bull Environ Contam Toxicol 97, 786–792 (2016).
<https://doi.org/10.1007/s00128-016-1914-4>

Gateway Health and Environmental Effects Citations

1. EPA weight-of-evidence category, "Likely to be carcinogenic to humans." US EPA, 2005. Office of Pesticide Programs. List of Chemicals Evaluated for Carcinogenic Potential. May 10, 2005.
<http://www.fluoridealert.org/wp-content/pesticides/pesticides.cancer.potential.2006.pdf>
2. Northwest Coalition for Alternatives to Pesticides (NCAP), Pesticide Factsheets.
<http://www.pesticide.org/pesticide-factsheets>.
3. Environmental Defense Fund, Scorecard Database. <http://www.scorecard.org/chemical-profiles/>.
4. Extension Toxicology Network (EXTOXNET) Pesticide Information Profiles.
<http://extoxnet.orst.edu/pips/ghindex.html>
5. 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>.

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