

Chemical Factsheet

Difenoconazole

General Information

- Product Names:
 - Inspire** (Syngenta)
 - Revus** (Syngenta) formulated with Madipropamide
 - Dividend** (Syngenta) formulated with [Metalaxyl-M](#)
 - Bravo** (Syngenta) formulated with [Chlorothalonil](#)
 - Cruiser** (Syngenta) formulated with [Thiamethoxam](#), and [Metalaxyl-M](#)
- Uses: Agriculture
- Alternatives: [Organic agriculture](#)
- Beyond Pesticides rating: [Toxic](#)

Health and Environmental Effects

See citations at end of document.

- Cancer: Possible (1)
- Endocrine Disruption: Suspected (1)
- Reproductive Effects: Not documented
- Neurotoxicity: Not documented
- Kidney/Liver Damage: Not documented
- 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

Residential Uses as Found in the ManageSafe™ Database

- [Mold](#)

Additional Information

- Supporting information:
 - [PAN Pesticides Database](#) (Pesticide Action Network North America)
- Studies [compiled from the [Pesticide-Induced Diseases Database](#)]
 - [Organic farming reduces pesticide load in a bird of prey](#). Fuentes, E. et al. (2024) Organic farming reduces pesticide load in a bird of prey, Science of The Total Environment. Available at: <https://www.sciencedirect.com/science/article/pii/S0048969724029255>.
 - [Single and combined exposure to 'bee safe' pesticides alter behaviour and offspring production in a ground-nesting solitary bee \(Xenoglossa pruinosa\)](#). Rondeau, S. and Raine, N. (2024) Single and combined exposure to 'bee safe' pesticides alter behaviour and offspring production in a ground-nesting solitary bee (Xenoglossa pruinosa),

Proceedings of the Royal Society Biological Sciences. Available at:
<https://royalsocietypublishing.org/doi/10.1098/rspb.2023.2939>.

- [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.
- [Pesticide bioaccumulation in radish produced from soil contaminated with microplastics](#). Ju, Hui & Yang, Xiaomei & Tang, Darrell & Osman, Rima & Geissen, Violette. (2023). Pesticide bioaccumulation in radish produced from soil contaminated with microplastics. *Science of The Total Environment*. 910. 168395. 10.1016/j.scitotenv.2023.168395.
- [Sperm quality of rats exposed to difenoconazole using classical parameters and surface-enhanced Raman scattering: classification performance by machine learning methods](#). Pereira, V.R., Pereira, D.R., de Melo Tavares Vieira, K.C. et al. Sperm quality of rats exposed to difenoconazole using classical parameters and surface-enhanced Raman scattering: classification performance by machine learning methods. *Environ Sci Pollut Res* 26, 35253–35265 (2019). <https://doi.org/10.1007/s11356-019-06407-0>
- [Triazole pesticides exposure impaired steroidogenesis associated to an increase in AHR and CAR expression in testis and altered sperm parameters in chicken](#). Serra, L., Bourdon, G., Estienne, A., Fréville, M., Ramé, C., Chevaleyre, C., Didier, P., Chahnamian, M., Ganier, P., Pinault, F., Froment, P., & Dupont, J. (2023). Triazole pesticides exposure impaired steroidogenesis associated to an increase in AHR and CAR expression in testis and altered sperm parameters in chicken. *Toxicology reports*, 10, 409–427. <https://doi.org/10.1016/j.toxrep.2023.03.005>
- [Cardiotoxicity and triazole pesticides: therapeutic options for a neglected heart disease](#). Souza, D. and Roman-Campos, D. (2025) Cardiotoxicity and triazole pesticides: therapeutic options for a neglected heart disease, *Expert Review of Cardiovascular Therapy*. Available at: <https://www.tandfonline.com/doi/full/10.1080/14779072.2025.2476124>.
- [Difenoconazole induces cardiovascular toxicity through oxidative stress-mediated apoptosis in early life stages of zebrafish \(Danio rerio\)](#). Zhu, J., Liu, C., Wang, J., Liang, Y., Gong, X., You, L., Ji, C., Wang, S. L., Wang, C., & Chi, X. (2021). Difenoconazole induces cardiovascular toxicity through oxidative stress-mediated apoptosis in early life stages of zebrafish (*Danio rerio*). *Ecotoxicology and environmental safety*, 216, 112227. Advance online publication. <https://doi.org/10.1016/j.ecoenv.2021.112227>
- [Assessing pesticide residue occurrence and risks in the environment across Europe and Argentina](#). Alaoui, A., Christ, F., Abrantes, N., Silva, V., González, N., Gai, L., Harkes, P., Navarro, I., Torre, A., Martínez, M. Á., Norgaard, T., Vested, A., Schlünssen, V., Aparicio, V. C., Campos, I., Pasković, I., Pasković, M. P., Glavan, M., Ritsema, C., & Geissen, V. (2024). Assessing pesticide residue occurrence and risks in the environment across Europe and Argentina. *Environmental pollution (Barking, Essex : 1987)*, 363(Pt 1), 125056. <https://doi.org/10.1016/j.envpol.2024.125056>
- [Adsorption behavior and mechanism of five pesticides on microplastics from agricultural polyethylene films](#). Wang, Ting & Yu, Congcong & Chu, Qiao & Wang, Fenghe & Lan, Tao & Wang, Jingfeng. (2019). Adsorption behavior and mechanism of five pesticides on microplastics from agricultural polyethylene films. *Chemosphere*. 244. 125491. 10.1016/j.chemosphere.2019.125491.
- [Metabolomics and transcriptomics reveal the toxicity of difenoconazole to the early life stages of zebrafish \(Danio rerio\)](#). Teng, Miaomiao et al. "Metabolomics and transcriptomics reveal the toxicity of difenoconazole to the early life stages of zebrafish (*Danio rerio*)."
Aquatic toxicology (Amsterdam, Netherlands) vol. 194 (2018): 112-120. doi:10.1016/j.aquatox.2017.11.009

- [Exposure to fungicide difenoconazole reduces the soil bacterial community diversity and the co-occurrence network complexity](#). Zhang, H., Song, J., Zhang, Z., Zhang, Q., Chen, S., Mei, J., Yu, Y., & Fang, H. (2021). Exposure to fungicide difenoconazole reduces the soil bacterial community diversity and the co-occurrence network complexity. *Journal of hazardous materials*, 405, 124208. <https://doi.org/10.1016/j.jhazmat.2020.124208>
- [High temporal resolution pollen analysis: New insights into current-use pesticides distribution in agricultural landscapes](#). Cirelli, S. et al. (2026) High temporal resolution pollen analysis: New insights into current-use pesticides distribution in agricultural landscapes, *Environmental Pollution*. Available at: <https://www.sciencedirect.com/science/article/pii/S0269749126007189>.

Gateway Health and Environmental Effects Citations

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

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