Chemical Factsheet

Coumaphos

General Information

- Product Names:
  CO-RAL emulsifiable livestock insecticide (Bayer)
  Checkmite+ bee hive pest control strip (Bayer)
  Corathon (Bayer) formulated with Diazinon
  Y-Tex CO-RAL livestock dust (Y-Tex)
  Balcom zipcide cattle dust bag (Chem-Tech LTD.)
  Shaker duster (Ritepack Inc.)
- Chemical Class: Organophosphate
- Uses: fleas grubs and ticks on cattle sheep goats horses and swine
- Alternatives: Organic agriculture
- Beyond Pesticides rating: Toxic

Health and Environmental Effects

See citations at end of document.

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

Additional Information

- Regulatory Status:
  - EPA Reregistration Eligibility Decision (RED). 1996.
- Studies [compiled from the Pesticide-Induced Diseases Database]
  - Coumaphos exposure and incident cancer among male participants in the Agricultural Health Study (AHS).. Christensen CH, Platz EA, Andreotti G, et al. 2010. Environ Health Perspect. 118(1):92-6
  - Pesticide residues in bee bread, propolis, beeswax and royal jelly – A review of the literature and dietary risk assessment . Végh, R., Csóka, M., Mednyánszky, Z. and Sipos, L., 2023. Food and Chemical Toxicology, p.113806.
  - Pesticide exposure and risk of cardiovascular disease: A systematic review. Zago, A. M., Faria, N. M. X., Fávero, J. L., Meucci, R. D., Woskie, S., & Fassa, A. G. (2022). Pesticide exposure and risk of cardiovascular disease: A systematic review. Global public health, 17(12), 3944–3966. https://doi.org/10.1080/17441692.2020.1808693

- Associations of specific pesticides and incident rheumatoid arthritis among female spouses in the Agricultural Health Study. Parks, C. et al. (2025) Associations of specific pesticides and incident rheumatoid arthritis among female spouses in the Agricultural Health Study, Arthritis & Rheumatology. Available at: https://acrjournals.onlinelibrary.wiley.com/doi/10.1002/art.43318.
- Pesticides residues and metabolites in honeybees: A Greek overview exploring Varroa and Nosema potential synergies. Kasiotis, Konstantinos M et al. “Pesticides residues and metabolites in honeybees: A Greek overview exploring Varroa and Nosema potential synergies.” The Science of the total environment vol. 769 (2021): 145213. doi:10.1016/j.scitotenv.2021.145213

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. Walsh, E.M., Sweet, S., Knap, A., Ing, N. and Rangel, J., 2020. Queen honey bee (Apis mellifera) pheromone and reproductive behavior are affected by pesticide exposure during development. Behavioral Ecology and Sociobiology, 74(3), pp.1-14. https://doi.org/10.1007/s00265-020-2810-9

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