Chemical Factsheet

Malathion

General Information

- Fact Sheet: Malathion.pdf
- Product Names:
  Fyfanon (Cheminova)
  Vegetables & Fruit Trees Spray (Bonide Products), formulated with Carbaryl
  Alco (Amvac Chemical)
  ULV Mosquitocide 731 (Clarke Mosquito Control Products), formulated with Resmethrin, Piperonyl butoxide (some formulations)
  Ferti-Lome (Voluntary Purchasing Group), formulated with PCNB, Captan (some formulations)
- Chemical Class: Organophosphate insecticide
- Uses: Alfalfa; apricot; asparagus; avocado; barley; bean (succulent and dry); beets (table); birdsfoot trefoil; blackberry; blueberry; boysenberry; broccoli; broccoli raab; Brussels sprout; cabbage (including Chinese); carrot; cauliflower; celery; chayote; cherry; chestnut; clover; collards; corn (field; sweet; and pop); cotton; cucumber; currant; dandelion; date; dewberry; eggplant; endive; escarole; potato; fig; garlic; gooseberry; grape; grapefruit; guava; hay grass; hops; horseradish; kale; kohlrabi; kumquat; leek; lemon; lespedeza; lettuce (head and leaf); lime; loganberry; lupine; macadamia nut; mango; melon; mint; mushroom; mustard greens; nectarines; oats; okra; onion; orange; papaya; parsley; parsnip; passion fruit; pea; peach; pear; pecan; pepper; pineapple; pumpkin; radish; raspberry; rice; rutabaga; rye; salsify; shallot; sorghum; spinach; spring wheat; squash; strawberry; sweet potato; Swiss chard; tangelo; tangerine; tomato (including tomatillo); turnip; vetch; walnut; watercress; watermelon; wheat (spring, and winter); wild rice; and yam; indoor stored commodity treatment and empty storage facilities for barley, corn, oats, rye, and wheat. Homeowner outdoor uses: ornamental flowering plants, ornamental lawns, ornamental turf, vegetable gardens and fruit trees; ornamental flowers, shrubs, and trees; Christmas tree plantations; slash pine; ornamental nursery stock; woody plants; building perimeters (domestic dwellings as well as commercial structures); uncultivated nonagricultural areas; outdoor garbage dumps; intermittently flooded areas; irrigation systems; pastures; and rangeland. Treatment of headlice and their eggs.
- Alternatives: Organic agriculture, Least-toxic outdoor residential control, Least-toxic head lice control, Least-toxic mosquito control
- Beyond Pesticides rating: Toxic

Health and Environmental Effects

See citations at end of document.

- Cancer: Suggestive evidence (**1**)
- Endocrine Disruption: Yes (**2**)
- Reproductive Effects: Yes (**3**)
- Neurotoxicity: Yes (**4**)

- Kidney/Liver Damage: Yes (**5**)
- Sensitizer/ Irritant: Yes (**6**)
- Birth/Developmental: Yes (**7**)
- Detected in Groundwater: Yes (**5**)
- Potential Leacher: Yes (**5**)
- Toxic to Birds: Yes (**8**)
- Toxic to Fish/Aquatic Organisms: Yes (**8**)
- Toxic to Bees: Yes (**8**)

Residential Uses as Found in the ManageSafe™ Database

- Bagworms
- Head Lice
- Cockroaches
- Fleas
- Mosquitoes
- Thrips
- Aphids

Additional Information

- Regulatory Status:
  - Beyond Pesticides' Comments (October 2024)
  - Biological Evaluation Chapters for Malathion ESA Assessment (2017)
  - Beyond Pesticides' Experimental Use Permits comments (3/2017)
  - Beyond Pesticides' Human Health Draft Risk Assessment for Registration Review comments (12/2016)
  - EPA Reregistration Eligibility Decision (RED) signed (7/2006)
  - NRDC and friends revised risk assessment comments (2005)
  - Beyond Pesticides' Cumulative Risk Organophosphate comments (2002)
  - Beyond Pesticides' preliminary risk assessment comments (2000)
- Supporting information:
  - Asthma, Children and Pesticides (Beyond Pesticides)
  - NCAP Malathion Factsheet (Northwest Coalition for Alternatives to Pesticides)
  - Extoxnet Malathion Factsheet (Extension Toxicology Network)
  - PAN Pesticides Database: Malathion (Pesticide Action Network)
- Studies [compiled from the Pesticide-Induced Diseases Database]
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6. Northwest Coalition for Alternatives to Pesticides (NCAP), Pesticide Factsheets. http://www.pesticide.org/pesticide-factsheets.

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

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