

chlorothalonil

ALWAYS READ AND FOLLOW THE LABEL

Information on this page is not to be substituted for label directions

Active Ingredient (a.i.):
chlorothalonil



Target Pest Category:
fungicide

Examples of Trade Names:
Bravo, Daconil, Exotherm Termil, Tadoo

Chemical Family:
Chloronitriles

Types of Formulation:
Flowable, solution, soluble dispersible granule, dust.
Some formulations also contain other fungicides.

What it is:

Chlorothalonil is a broad spectrum, contact, or protectant fungicide with long residual activity. It helps to prevent infection by fungi when applied as a protective barrier on the plant surfaces.

How it works (Mode of Action):

Chlorothalonil is a multi-site inhibitor affecting various enzymes and other metabolic processes in fungi. It inhibits spore germination, and is toxic to fungal cell membranes.

Toxicity based on pure active ingredient:

Species	LD ₅₀ /LC ₅₀	Relative Toxicity
Mammal (rat)	LD ₅₀ Oral : >10,000 mg/kg	Slightly toxic
Mammal (rabbit)	LD ₅₀ Dermal: >10,000 mg/kg	Slightly toxic
Bird (quail)	LD ₅₀ >10,000 mg/kg diet	Practically non-toxic
Bees (contact)	No more than slightly toxic	Practically non-toxic
Fish (trout) (96 hour)	LC ₅₀ 49 µg/L	Highly toxic
Worms (14 days)	LC ₅₀ >1000 mg/kg	-

* For description of relative toxicity categories please click [here](#).

What it controls:

Chlorothalonil is effective against fungal diseases such as grey mold, early and late blights, leaf spots, anthracnose, fruit rots, rusts and downy mildews that threaten numerous vegetable, small fruit, stone fruit, ornamental, turf and other agricultural crops. Note: the specific crop-disease combination must be on the label.

Application Timing:

The timing of application depends on the fungus to be controlled, and the growth stage of the plants to be protected. Refer to the label for detailed instructions on rates and application timing for the specific crop and disease.

Mixing Instructions:

Refer to label for specific mixing instructions. Before preparing the spray mix, slowly invert the container several times to assure uniform mixture.



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Application Tips:

- Thorough uniform coverage is essential for disease control.
- DO NOT tank mix with pesticides, surfactants or fertilizers unless prior use has shown the combination physically compatible, effective and non injurious under local conditions.
- May be applied by air to certain crops. Refer to label for information on aerial application.
- Do not apply to tree fruit within 10 days of an oil spray to prevent crop injury.

Applicator Safety and Re-entry:

- DO NOT re-enter treated areas within 48 hours. Sod farm turf treated prior to harvest must be mechanically cut, rolled and harvested.
- Causes severe eye damage. DO NOT get in eyes.
- May cause allergic reactions in some people. Avoid contact with skin or clothing.
- Personal protective equipment required includes coveralls, waterproof gloves, shoes, and protective eyewear.

Resistant Management:

- Chlorothalonil is a Group M2 fungicide.
- Chlorothalonil is considered to be at low risk for resistance due to it's multi-site activity. As such, it is useful for resistance management purposes in programs with other fungicides that are at higher risk for resistance.
- Do not exceed the maximum number of sprays per season listed on the label for your crop.

Integrated Pest Management:

- Chlorothalonil is non-toxic to bees, and practically nontoxic to birds.

Restrictions:

- Preharvest intervals vary widely by crop. Refer to label.

Unique Characteristics/Special Instructions:

- Chlorothalonil is a fairly persistent fungicide on plants, depending on the rate of application. Do not exceed label rates and carefully follow preharvest intervals to prevent excessive residues on the harvested crop.

Pesticide Labels:

- Labels for pesticides registered in Canada can be found on the Pest Management Regulatory Agency (PMRA) label search web page:
<http://www.eddenet.pmra-arla.gc.ca/4.0/4.01.asp>

Storage:

- DO NOT store near feed or foodstuffs.
- Store in a cool place in original, closed container. Protect from excessive heat.
- Keep out of reach of children.

Environmental Considerations:

- Highly toxic to fish and other aquatic organisms.
- Do not apply or allow drift onto any body of water or other nontarget areas. Observe a buffer zone of 100 metres for aerial applications and 15 metres for ground applications to protect wetlands, including lakes, streams, ponds or sloughs from drift.
- Chlorothalonil is moderately persistent in soils, with a half-life of 1 to 3 months. It is not degraded by sunlight on the soil surface.
- Chlorothalonil does not store in fatty tissues and is rapidly excreted from the body. Its bioaccumulation factor is quite low.