

amitrole

ALWAYS READ AND FOLLOW THE LABEL

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

Active Ingredient (a.i.):
amitrole

Target Pest Category:
herbicide

Examples of Trade Names:
Amitrol

Chemical Family:
Amitrole is in the Triazole family which are inhibitors of carotenoid biosynthesis.

What it is:
Nonselective post-emergence systemic herbicide



Types of Formulation:
Liquid solutions, soluble powder, soluble concentrate

How it works (Mode of Action):
Known as a pigment inhibitor or bleaching herbicide, amitrole is absorbed by foliage and roots and prevents chlorophyll development. Translocates well in xylem and phloem. Accumulates in growing regions of plant. The affected plant parts become white to translucent. Susceptible plants may emerge as white plants before dying.

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: >5000 mg/kg	Slightly toxic
Bird (quail)	LD ₅₀ >2150 mg/kg	Practically non toxic
Bees (honey)	LD ₅₀ >10 µg/bee	Practically non toxic
Fish (trout) (96 hour)	LC ₅₀ >1000 mg/L	Practically non toxic
Other beneficial species (soil microflora)	at 10x normal application rate	No adverse effect

*For description of relative toxicity categories please click here.

What it controls:
Many annual grasses, annual and perennial broadleaf weeds, poison ivy in non-cropland; semi-aquatic weeds in marshes and drainage ditches. Refer to label for registered uses.

How long it takes/Expected Results:
Perennial weeds usually start to turn white within 7-14 days after application depending on growing conditions. Complete control takes 2-6 weeks.

Application Timing:
Check the label for specific timing. Instructions vary for type of crop and weed being treated.

Storage:
Do not allow to liquid formulations to freeze; store above 4°C. Keep in original container away from stoves, radiators or any place where the temperature may reach 50°C.



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Application Tips:

- Foliar postemergence application to actively growing plants.
- Good coverage is essential.
- If weeds are mature, it is advisable to cut them and then spray regrowth.
- Do not disturb treated plants for at least 2 weeks after application.
- Do not make postharvest application after October 1.
- For control of quackgrass apply to actively growing plants 10-15 cm tall. For Canada thistle apply early bud to bloom stage. Wait 3 weeks before cultivating or mowing treated plants.
- Apply in early morning or evening when humidity is high, for best results
- Avoid application when daytime temperature exceeds 25°C and air conditions are very dry.
- Avoid using rates higher than 20 litres/hectare preplant in crop applications on very light soil with low organic matter. Crop damage may occur, particularly on sandy knolls.

Resistance Management:

- Amitrole is a Group 11 herbicide.
- Resistant plants metabolize it faster than sensitive plants and may have lower uptake due to leaf structures that reduce wetting/penetration.

Applicator Safety and Re-entry:

- **Do not** re-enter treated areas with 12 hours of application.

Restrictions:

- *Drift:* Most crops are sensitive if contacted by spray.
- *Grazing Restrictions:* Do not graze treated crops or weeds or cut for hay. Sufficient data not available to support such use.
- *Succeeding Crops:* Corn, soybeans, white beans – wait 10-14 days following a preplant spray, then plant crop under no-till or conventional till.

Unique Characteristics/Special Instructions:

- The possibility of damage to succeeding crops is dependant on the rate applied. Refer to the label for appropriate intervals between application and planting of crops.
- Do not plant to grain, peas, alfalfa or clover for 8 months after treatment.
- Poor results may occur if spray coverage is inadequate, if plants are drought stressed or overmature, or if heavy rains fall within 2 hr. after application.
- Do not let livestock eat treated vegetation. Keep livestock off treated area until weeds are dead and new growth has emerged.

Pesticide Labels:

- To find labels for pesticides registered in Canada, please link to the Pest Management Regulatory Agency (PMRA) label search web page:
<http://www.eddenet.pmra-arla.gc.ca/4.0/4.01.asp>

Environmental Considerations:

- Residual Activity - approximately 2-4 weeks in moist, warm soil. The level of residual activity is dependant on the rate applied.
- Amitrole has low soil persistence. Its half-life is 14 days.
- Microbial breakdown of amitrole takes 2 to 3 weeks in warm, moist soil. Some chemical degradation may also occur in soils.
- Volatilization of amitrole from soils, or photodegradation is minor.
- Amitrole has a moderate potential for groundwater contamination because it does not adsorb strongly to soil particles and is readily water-soluble.
- In aquatic environments, amitrole does not break down by hydrolysis or photolysis, volatilize, nor bioaccumulate in aquatic organisms. The biodegradation half-life for amitrole in water is about 40 days. Degradation of amitrole in open waters may occur through oxidation by other chemicals.
- Amitrole is readily absorbed and rapidly translocated in the roots and leaves of higher plants. But, plants are able to metabolize amitrole in 1 to 4 weeks. Amitrole residues were not detected in crops planted into soil 1 to 50 days after treatment with amitrole.