



# Supplemental Label

## HYDROTHOL<sup>®</sup> 191 Aquatic Algicide and Herbicide

**This Supplemental Label is not registered for use in New York State**

EPA Reg. No. 70506-175

This Supplemental Label Expires December 31, 2011

### Revised Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its label. This supplemental label and the federally registered label must be in the possession of the user at the time of pesticide application. Follow all applicable directions, restrictions, Worker Protection Standard requirements, and precautions on the EPA registered label.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift.

Fish may be killed by dosages in excess of 0.3 parts per million (ppm).

Avoid contact with or drift to desirable plants or crops as injury may result.

Clean out application equipment after each operation.

Not for use in brackish or salt water.

Do not use where fish are important resources.

#### PRODUCT INFORMATION

HYDROTHOL 191 is a liquid concentrate soluble in water and is a highly effective aquatic herbicide and algicide for use in drainage canals, lakes and ponds. Apply when weeds and algae are actively growing. Note: Susceptibility of algae may vary due to subspecies, strains or environmental conditions. Dosage rates are measured in parts per million (ppm) endothall acid.

Necessary approval and/or permits should be obtained in states where required.

#### Drinking Water (Potable Water)

- Consult with appropriate state or local water authorities before applying this product to public waters. State or local agencies may require permits. The drinking water (potable water) restrictions on this label are to ensure that consumption of water by the public is allowed only when the concentration of endothall in the water is less than the MCL (Maximum Contamination Level) of 0.1 ppm. Applicators should consider the unique characteristics of the treated waters to assure that endothall concentrations in potable drinking water do not exceed 0.1 ppm at the time of consumption.
- For applications of endothall, the drinking water setback distance from functioning potable water intakes is greater than or equal to 600 feet.



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- Note: Existing potable water intakes that are no longer in use, such as those replaced by a connection to a municipal water system or a potable water well, are not considered to be functioning potable water intakes.

## **LAKES AND PONDS**

### **Restrictions for Lakes and Ponds Only:**

Do not contaminate water intended for domestic purposes.

Do not use treated water for animal consumption or for domestic purposes within the following periods:

- 0.3 ppm— 7 days after application
- 3.0 ppm—14 days after application
- 5.0 ppm—25 days after application

Use of endothall N’N-dimethylalkylamine salt is limited to algae and the following plants:

Hygrophila\*, Vallisneria, Hydrilla, Cabomba\*, Bur weed\*, *Elodea canadensis*, and Brazilian Elodea.

\* Not for this use in California

**ALGAE CONTROL:** HYDROTHOL 191 is effective on a broad range of planktonic, filamentous, and branched algae. Note: Susceptibility of algae may vary due to subspecies, strains or environmental conditions. Generally rates of 0.05 to 0.3 ppm (0.6-3.6 pints per acre foot) are effective for the control of algae. Repeat applications when algae reappear and reach treatment levels. Dosages may be increased (from 0.3 to 1.5 ppm) where greater longevity of control is desired or to improve efficacy on species that prove difficult to control. Due to the potential for fish toxicity at higher rates, it is suggested that applications above 0.3 ppm be made only by commercial applicators as marginal or sectional treatments.

**SUBMERGED AQUATICS:** Apply HYDROTHOL 191 at 0.7 gallons to 4.0 gallons per acre foot (0.5 to 3.0 ppm) for control of aquatic weeds. HYDROTHOL 191 is for use on the following aquatic weeds: Hygrophila\*, Vallisneria, Hydrilla, Cabomba\*, Bur weed\*, *Elodea canadensis*, and Brazilian Elodea.

\* Not for this use in California

Due to the toxicity to fish, the use of HYDROTHOL 191 for submerged aquatic weeds is suggested only by commercial applicators on a marginal or sectional rather than overall type treatment. Use dosages over 1.0 ppm only on very narrow margins or in areas where some fish kill is not objectional. Do not treat more than 1/10 of the lake or pond at one time with doses in excess of 1.0 ppm.



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## RATE OF APPLICATION: LAKES AND PONDS

Algae or Weed	Rate (ppm)	Amount per Acre Ft.
<b>Algae:</b> Planktonic, Filamentous, Branched (Use in California limited to Cladophora, Pithophora, Spirogyra, Chara)	0.05-1.5	0.6-18.0 pints
Bur Reed*	2-3	2.7-4.0 gal.
Cabomba*	2-3	2.7-4.0 gal.
Brazilian Elodea	2-3	2.7-4.0 gal.
Elodea Canadensis	2-3	2.7-4.0 gal.
Hydrilla	1-2	1.4-2.7 gal.
Hygrophila*	2-3	2.7-4.0 gal.
Vallisneria	2-3	2.7-4.0 gal.

\*Not for this use in California

## DRAINAGE CANALS

### Restrictions for Drainage Canals Only:

Do not contaminate water intended for domestic purposes.

Do not use treated water for domestic purposes within the following periods:

- 0.3 ppm— 7 days after application
- 3.0 ppm—14 days after application
- 5.0 ppm—25 days after application

Apply in a manner to achieve the desired rate and adequate mixing so the product is distributed throughout the entire water column. Adequate concentration (rate) and exposure time (length of treatment) will impact the efficacy of the herbicide (endothall) on the target weed species. Although endothall is a contact herbicide adequate exposure time is critical. The rates and the length of treatment are guidelines to provide control of the target species and assume that the entire canal is treated. This rate chart has been developed based on Concentration Exposure Time (CET) data for endothall. The CET concept allows rates and the length of exposure to be adjusted for different treatment scenarios.



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## RATE OF APPLICATION: DRAINAGE CANALS

Target Species	Rates	Duration	Restriction
<b>Algae:</b> Planktonic, Filamentous, Branched (Use in California limited to Cladophora, Pithophora, Spirogyra, Chara)	0.05 – 1.5 ppm	6 – 120 hours	
<b>Weeds</b> Bur Reed* Cabomba* Coontail Elodea Canadensis Hydrilla Hygrophila* Milfoil(s) Naiad (Najas spp.) Pondweed (Potamogeton spp.) Water Stargrass* Vallisneria Zannichellia	0.2 – 5 ppm	6 – 120 hours	A maximum of 30ppm per growing season, not to exceed 5ppm per application. A minimum of a 7-day application interval, with no PHI

\* Not for this use in California

To calculate the amount of Hydrothol 191 required for a particular treatment use the following formula:

$$[\text{Cubic Feet per Second (CFS)} \times \text{Length of Treatment (hrs)} \times \text{rate (ppm)}] \times 0.11198 = \text{Gallons of Hydrothol 191 needed for treatment}$$

To calculate the amount of Hydrothol 191 to be applied per hour use the following formula:

$$\text{Gallons of Hydrothol 191 per hour} = \text{Gallons of Hydrothol 191} / \text{Length of Treatment (hrs)}$$

The “Directions for Use” of this product reflect the cumulative inputs from both historical field use and product testing programs. Actual field conditions may vary. Phytotoxicity is not expected, however all crop (species) and cultivars (varieties) have not been tested. Precautions: Crops have been shown to exhibit tolerance to endothall, however environmental and physiological stress may cause some crops to be susceptible.