

# HYDROTHOL<sup>®</sup> GRANULAR

AQUATIC ALGAEICIDE AND HERBICIDE

For algae and aquatic plant control in quiescent, slow moving,  
and flowing water aquatic sites.

**ACTIVE INGREDIENT:**

Mono(N,N-dimethylalkylamine) salt of endothall\* ..... 11.2%

**OTHER INGREDIENTS:** ..... 88.8%

**TOTAL** ..... 100.0%

\*7-oxabicyclo [2.2.1] heptane-2,3-dicarboxylic acid equivalent 5%

**KEEP OUT OF REACH OF CHILDREN  
DANGER PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

**FIRST AID**

**IF IN EYES:**

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:**

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

**IF INHALED:**

- Move person to fresh air.
- If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for treatment advice.

**HOT LINE NUMBER:** Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 866-673-6671 (Rocky Mountain Poison Control Center) for emergency medical treatment information.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsion may be needed.

EPA Registration No. 70506-174

Batch/Lot No.: \_\_\_\_\_

Net Weight: \_\_\_\_\_



**United Phosphorus, Inc.**  
630 Freedom Business Center, Suite 402  
King of Prussia, PA 19406  
1-800-438-6071

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER**

CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. MAY BE FATAL IF SWALLOWED. DO NOT GET IN EYES OR ON CLOTHING. PROLONGED OR FREQUENTLY REPEATED SKIN CONTACT MAY CAUSE ALLERGIC REACTIONS IN SOME INDIVIDUALS.

**Personal Protective Equipment (PPE)**

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Socks and shoes,
- Chemical-resistant gloves,
- Protective eyewear,
- NIOSH-approved half- or full-face respirator with a cartridge or a canister approved for dusts and mists or a cartridge with any N, R, P, or HE filter. Note: the quarter-face cup-style respirator does not meet this requirement.

Exception: During application, the respirator need not be worn, provided that the Hydrothol Granular is applied in a manner (such as direct metering or subsurface release from the rear of a vessel that is moving into the wind) that the applicator will have no contact with the pesticide.

See Engineering Controls for additional requirements.

**User Safety Requirements:**

Follow the manufacturers' instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**Engineering Controls:**

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40CFR170.240(d)(6)]. Exception: Enclosed cockpit is not required when applications are made from a helicopter utilizing a suspended hopper (minimum distance of 25') with remote actuation of the application equipment such as the helicopter mounted Simplex Spreader.

**User Safety Recommendations**

Users should:

- Wash hands thoroughly after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

This pesticide is highly toxic to fish and aquatic invertebrates. This pesticide is toxic to wildlife.

Treatment of algae and aquatic plants can result in oxygen loss from decomposition of dead algae and plants. This loss can cause fish suffocation. Water bodies containing very high algae or plant density should be treated in sections to prevent suffocation of fish.

**PRODUCT INFORMATION**

Hydrothol Granular is a highly effective granular algaecide and herbicide. Apply when target algae and aquatic plants 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.

**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.

- When used as directed, phytotoxicity is not expected on plants or crops irrigated with Hydrothol Granular treated water, however, all species and cultivars (varieties) have not been tested.
- Do not use Hydrothol Granular treated water for chemigation as interactions between Hydrothol Granular and other pesticides and fertilizers are not known.
- Do not use Hydrothol Granular in waters containing Koi or hybrid goldfish.
- Hydrothol Granular is not intended for use in small volume garden pond systems.
- Fish may be killed by dosages in excess of 0.3 parts per million (ppm).
- Contact with desirable plants or crops may result in injury.
- Do not use Hydrothol Granular in brackish or salt water.
- Do not treat more than 10% of the area at one time with doses in excess of 1 ppm.

**HOW TO APPLY:**

Hydrothol Granular is a contact algaecide and aquatic herbicide for use in drainage canals, lakes and ponds. Apply when target algae and plants are present. Note: Susceptibility of algae may vary due to subspecies, strains or environmental conditions.

Apply Hydrothol Granular as evenly as possible in the area to be treated.

**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 acid in the water is less than the MCL (Maximum Contamination Level) of 0.1 ppm. Applicators must consider the unique characteristics of the treated waters to assure that endothall acid concentrations in potable drinking water do not exceed 0.1 ppm at the time of consumption.

**For Lakes, Ponds, and other Quiescent Water Bodies:**

- For Hydrothol Granular applications, the drinking water setback distance from functioning potable water intakes in the treated water body must be greater than or equal to 600 feet.
- 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.

**For Flowing Water Bodies:**

- Applicator is responsible to assure that treated water exceeding the MCL of 0.1 ppm does not enter potable water intakes. For Hydrothol Granular applications, potable water intakes must be closed when treated water exceeding the MCL of 0.1 ppm is present at the intake. In the event the water intake cannot be closed (when treated water will exceed 0.1 ppm), treatments must only be made downstream from the intake in order to assure Hydrothol Granular treated water above 0.1 ppm does not enter the potable water system.

**QUIESCENT, SLOW MOVING OR FLOWING WATER TREATMENTS**

**ALGAE CONTROL:** Hydrothol Granular 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. Apply at rates of 0.05 to 0.3 ppm (3-16 lbs. per acre foot) on light to moderate infestation of planktonic and filamentous algae. Apply higher labeled rates for branched algae species. Repeat applications when algae reappear and reach treatment levels. Dosages may be increased (from 0.3 to 3.0 ppm) where greater longevity of control is desired or to improve efficacy on species that prove difficult to control. Due to potential fish toxicity, it is suggested that applications above 0.3 ppm be made only by commercial applicators as marginal or sectional treatments.

**SUBMERGED AQUATIC PLANTS:** Apply Hydrothol Granular at 0.5 to 5.0 ppm (27 lbs. to 270 lbs. per acre foot) for control of submerged aquatic plants. Due to potential fish toxicity, Hydrothol Granular use for submerged aquatic plant control is suggested to be made only by commercial applicators as marginal or sectional treatments.

**RATE OF APPLICATION:**

Algae or Plant	Endothall Acid Rate (ppm)	Hydrothol Granular (lbs. per Acre Ft.)
Algae Planktonic, Filamentous, Branched (Use in California limited to <i>Cladophora</i> , <i>Pithophora</i> , <i>Spirogyra</i> , <i>Chara</i> )	0.05-3.0 <sup>d</sup>	3-162
Fanwort, <sup>a,b,c</sup> <i>Cabomba caroliniana</i>	2-5	108-270
Brazilian Elodea, <i>Egeria densa</i>	2-5	108-270
Elodea, <sup>c</sup> <i>Elodea canadensis</i>	2-5	108-270
Hydrilla, <i>Hydrilla verticillata</i>	1-5	54-270
Hygrophila, <sup>a,c</sup> <i>Hygrophila polysperma</i>	2-5	108-270
Eelgrass, <sup>c</sup> <i>Vallisneria americana</i>	2-5	108-270
Coontail, <sup>c</sup> <i>Ceratophyllum</i> spp.	1.5-2.5	81-135
Horned Pondweed, <sup>c</sup> <i>Zannichellia palustris</i>	1.5-2.5	81-135
Milfoil, <sup>c</sup> <i>Myriophyllum</i> spp.	1.5-2.5	81-135
Sago Pondweed, <sup>c</sup> <i>Stuckenia pectinata</i>	1-2.5	54-135
Naiad, <sup>c</sup> <i>Najas</i> spp.	1.5-2.5	81-135
Pondweed, <sup>c</sup> <i>Potamogeton</i> spp. <b>Including:</b>	0.75-2.5	41-135
American, <i>P. nodosus</i>	1.5-2.5	81-135
Largeleaf (Bass Weed), <i>P. amplifolius</i>	1.5-2.5	81-135
Curlyleaf, <i>P. crispus</i>	0.75-1.5	41-81
Flatstem, <i>P. zosteriformis</i>	1.5-2.5	81-135
Floating-leaf, <i>P. natans</i>	1-2.5	54-135
Illinois, <i>P. illinoensis</i>	1.25-2.5	68-135
Narrowleaf, <i>P. pusillus</i>	1-2.5	54-135
Threadleaf, <i>P. filiformis</i>	1.5-2.5	81-135
Variable Leaf, <i>P. diversifolius</i>	1-2.5	54-135
Water Stargrass, <sup>a,c</sup> <i>Heteranthera</i> spp.	1.5-2.5	81-135

<sup>a</sup> Not for this use in California    <sup>b</sup> Suppression only    <sup>c</sup> Not for this use in New York    <sup>d</sup> See specific use instructions under Algae Control

**Restriction for flowing waters used for irrigation of food crops:** Do not apply more than 30 ppm per growing season, not to exceed 5 ppm per application. Do not apply more than a total of 5 ppm within a 7-day interval.

**Note:** There is no Pre-harvest Interval (PHI) for crops irrigated with treated water.

**PONDS AND SMALL LAKES WITH LITTLE TO NO OUTFLOW**

The following directions are intended for ponds and small lakes with minimal outflows to assure adequate contact time with the weeds. Apply Hydrothol Granular directly to the perimeter or in multiple locations around the perimeter of the water body. This will allow for rapid mixing throughout the water body as well as the water column.

For best results, apply in early spring when weeds are actively growing with a minimum of 24 hours contact time.

**Apply Hydrothol Granular at the following rate:** PLANTS CONTROLLED AND HYDROTHOL GRANULAR DOSAGE RATES FOR SURFACE OR INJECTED APPLICATIONS IN PONDS AND SMALL LAKES

Algae or Plant	Hydrothol Granular (lbs. per Acre. Ft.)	Concentration (ppm)
<b>Algae</b>		
Planktonic and Filamentous, (Use in California limited to <i>Cladophora</i> , <i>Pithophora</i> , <i>Spirogyra</i> , <i>Chara</i> )	15 lbs.	0.25 ppm
Branched ( <i>Chara</i> , <i>Nitella</i> )	30 lbs.	0.5 ppm
<b>Aquatic Plants</b>		
Brazilian Elodea ( <i>Egeria densa</i> ) Coontail <sup>c</sup> ( <i>Ceratophyllum</i> spp.) Eelgrass <sup>c</sup> ( <i>Vallisneria Americana</i> ) Elodea <sup>c</sup> ( <i>Elodea Canadensis</i> ) Fanwort <sup>a,b,c</sup> ( <i>Cabomba caroliniana</i> ) Water Stargrass <sup>a,c</sup> ( <i>Heteranthera</i> spp.) Horned Pondweed <sup>c</sup> ( <i>Zannichellia palustris</i> ) Hydrilla ( <i>Hydrilla verticillata</i> ) Milfoil <sup>c</sup> ( <i>Myriophyllum</i> spp.) Naiad <sup>c</sup> ( <i>Najas</i> spp.) Sago Pondweed <sup>c</sup> ( <i>Stuckenia pectinata</i> ) Pondweed <sup>c</sup> ( <i>Potamogeton</i> spp.)	30 lbs.	0.5 ppm

<sup>a</sup> Not for this use in California

<sup>b</sup> Suppression only

<sup>c</sup> Not for this use in New York

Examples of Hydrothol Granular for Treatment, Average Depth 4 ft. (0.25 ppm for planktonic and filamentous algae; 0.5 ppm for branched algae and aquatic plants)

Algae or Plants	Amount of Hydrothol Granular to Treat 1/2 Acre	Amount of Hydrothol Granular to Treat 1 Acre
Planktonic and Filamentous Algae	30 lbs.	60 lbs.
Branched Algae and Aquatic Plants	60 lbs.	120 lbs.

The following charts indicate the quantity of Hydrothol Granular to be applied.

**Pounds of Hydrothol Granular to Treat One Acre-Foot of Water**

	Rate (ppm)							
	0.05	0.1	0.3	0.5	1.0	2.0	3.0	5.0
	lbs./A-ft.							
1 acre ft.	3	5	16	27	54	108	162	270

**Ounces of Hydrothol Granular to Treat 1,000 Square-Feet per Foot of Depth**

	Rate (ppm)							
	0.05	0.1	0.3	0.5	1.0	2.0	3.0	5.0
	oz./1,000 ft. <sup>2</sup>							
1,000 ft. <sup>2</sup>	1.0	1.9	5.8	10	20	40	60	100

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage and disposal.

**Pesticide Storage:** Store in the original container. Do not store in a manner where cross contamination with other pesticides, fertilizers, food or feed could occur. If spilled during storage or handling, sweep up spillage and dispose of in accordance with the Pesticide Disposal instructions listed below.

**Pesticide Disposal:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Handling: Nonrefillable container. Do not reuse or refill this container.**

**Clean container promptly after emptying.**

*(if plastic pail)* Triple rinse (or equivalent). Triple rinse container (or equivalent). Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

*(if plastic bag)* Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**EMERGENCY TELEPHONE NUMBERS**

**CHEMTREC: (800) 424-9300**

**MEDICAL: (866) 673-6671 Rocky Mountain Poison Control Center**

**IMPORTANT INFORMATION  
READ BEFORE USING PRODUCT**

**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials, resistant strains or other influencing factors in the use of the product which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

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