

# **WHOLE LAKES AND RESERVOIRS TREATMENTS - CONTROLLED - (FOR 1-20 FEET DEPTH OF WATER) - 90 PPB**

## General Information

### PRODUCT INFORMATION

The product is a selective translocated aquatic herbicide. Applied to freshwater ponds, lakes, reservoirs, drainage canals and irrigation canals, the product helps manage undesirable aquatic weeds. Susceptible aquatic vascular plants absorb the product through the shoots and roots. For effective control, contact of the product with the target plants must be maintained for at least 45 days. Effective control is reduced if conditions exist that dilute the concentration of the product in the water. The mode of action of this product involves inhibition of carotene synthesis in the target weeds. Lack of carotene in plants causes the chlorophyll to break down when the plants are exposed to sunlight. New shoot growth on target weeds begins to turn chlorotic (white) or pink in color within 7 to 10 days of exposure to this product. Ideally, 30 to 90 days of continuous exposure to this product will provide optimum control of target weeds.

Some plant species may not be controlled by this product under all conditions. Factors affecting herbicide performance include growth stage of the target weed, the time of year when this product is applied, and dilution or movement of treated water. Optimum results are achieved when this product is applied before weeds begin to actively grow. For mature plants, the higher application rates will be required and effects due to treatment will take longer to observe.

A suitable analysis of the water to determine the concentration of this product is highly recommended. The most common method of water analysis for measuring fluridone concentrations which is recommended is the Enzyme-Linked Immunoassay (ELISA Test). Contact Applied Biochemists for information on this test when using this product in treatment programs. Application rates are shown in fluid ounces or quarts of this product to achieve a desired concentration of the active ingredient in parts per billion by weight (ppbw).

### PRECAUTIONS

- Hydroponic Farming: Do not use this product treated water for hydroponic farming.
- Greenhouse and Nursery Plants: Do not use water which has been treated with this product to irrigate greenhouse or nursery plants unless chemical assays of the water indicate fluridone residues are less than one parts per billion (ppb).
- Maximum Use Rates: Do not apply more than a total of 90 ppb in ponds and 150 ppb in lakes and reservoirs per annual growth cycle. These maximum concentrations are the amounts of fluridone calculated as the target application rate, NOT the concentration determined by analysis of fluridone in the treated water.
- Waiting Periods: If application rates are 150 ppb or less, treated water may be used immediately with no waiting period for drinking (potable) water (including watering livestock and pets), fishing or swimming. See specific restrictions below for Potable Water Intakes and Irrigation.
- Potable Water Intakes: In lakes and reservoirs or other sources of potable water, DO NOT APPLY this product at application rates greater than 20 ppb within 1/4 mile (1320 feet) of any functioning potable water intake. If rates are between 6 and 20 ppb, this product MAY BE APPLIED where functioning potable water intakes are present.

Note: Existing potable water intakes which are no longer in use, such as those replaced by potable water wells or connections to a municipal water system, are not considered to be functioning potable water.

- Irrigation using water treated with this product may injure the irrigated vegetation.

Instruct those who use treated water to follow the recommended waiting periods listed in the table on the label and to assay the water for fluridone residues. For crops grown on low organic and sandy soils and irrigated with treated water, the potential for crop injury is greater than for crops grown on heavier soils. If a shorter waiting period is desired for irrigation of crops using treated water, use a suitable analysis (ELISA or other methods) to measure the concentration of fluridone in the treated water. If the concentration of fluridone is less than 10 ppb, established tree crops, established row crops or turf can be irrigated with treated water. If the concentrations of fluridone are greater than 5 ppb, tobacco, tomatoes, peppers or other plants within the Solanaceae Family and newly seeded crops or newly seeded

grasses such as overseeded golf course greens should NOT be irrigated with treated water.

Ponds: For this product labeling purposes, a pond is defined as a body of water 10 acres or less in size.

Lakes or Reservoirs: For this product labeling purposes, a lake or reservoir is defined as greater than 10 acres in size. When only one-half or more of the lake or reservoir is treated, follow the Pond and Static Canal precautions.

## AQUATIC PLANT INFORMATION

Depending on the use rate, water movement, application timing, weed growth stage and application method, this product will control, partially control, or will not control certain aquatic plant species.

The tables in the label categorize the species when this product is applied under ideal application conditions at higher to maximum label rates. When lower rates are used, certain species in the controlled or partially controlled categories will show increased tolerance to this product.

Aquatic plants not listed may also be controlled, partially controlled, or be tolerant to this product. Before applying this product, identify the aquatic plants to determine their susceptibility to this product.

The following Vascular Aquatic Plants are Not Controlled by This Product:

Waterlettuce (*Pistia stratiotes*), American frogbit (*Limnobium spongia*), arrowhead (*Sagittaria* spp.), Bacopa (*Bacopa* spp.), Big floatingheart, banana lily (*Nymphoides aquatica*), Bulrush (*Scirpus* spp.), Floating waterhyacinth (*Eichhornia crassipes*), pickerelweed, lanceleaf (*Pontederia* spp.), Maidencane (*Panicum hemitomon*).

Note: This product does not control algae (*Chara*, *Nitella*, and single-cellular, colonial and filamentous species).

Limitations, Restrictions, and Exceptions

## DIRECTIONS FOR APPLICATION – LAKES AND RESERVOIRS

The product may be used for treatment of both whole lakes and reservoirs and partial areas of lakes or reservoirs (bays and coves). Target weeds in partial lake

and reservoir treatments which are at least 5 acres in size are more effectively treated with this product than smaller size areas. Smaller treatment areas (less than 5 acres) or narrowstrips such as boat trails or shorelines may not produce satisfactory results as this product may be diluted with untreated water. Due to a number of environmental factors, rate ranges are provided. Select the rates and application methods based on the specific goals of the aquatic plant management program at each different site.

#### Whole Lake or Reservoir Treatments (Limited or No Water Discharge)

Single Application to Whole Lakes or Reservoirs: Apply this product at an application rate of between 10 and 90 ppb. Consult the table on the label for the amount of this product required to achieve these concentrations in the treated water. Rates should be based on the goals of the aquatic plant management program. If control of Eurasian watermilfoil and curlyleaf pondweed is desired or for greater plant selectivity, use an application rate lower in the range. For other plant species, contact an aquatic specialist to help determine when to choose lower application rate.

The higher rates within the rate range can be used when dense weed infestations are present or when treating hard-to-control weed species. Additional applications may be required to control more difficult-to-control species or when dilution of the treatment concentration has occurred such as from a heavy rainfall. If multiple applications are made, do not exceed 150 ppb (the sum of all applications) per annual growth cycle. Read the directions below on Split or Multiple Applications. For additional application rate calculations, refer to the section How To Calculate Application Rates at the end of the label.

Split or Multiple Applications to Whole Lakes or Reservoirs: If the goal of the aquatic plant management program is to use the lowest effective rate and to maintain a low herbicide concentration for sufficient time to ensure efficacy and enhanced selectivity, split or multiple application programs are appropriate. However, water analyses using ELISA (or other analyses) must be carried out to ensure that the water is treated at an initial application rate of 6 to 50 ppb. Continue split applications to maintain a sufficient concentration of fluridone for a minimum of 45 days or longer. As with single applications, to control Eurasian watermilfoil and curlyleaf pondweed and to provide greater plant selectivity, use an application rate lower in the rate range. For other weed species, contact an aquatic specialist to

help determine when to choose lower application rate.

A single application at no more than 20 ppb may be made to lakes or reservoirs containing functional potable water intakes within 1/4 mile of these functioning potable water intakes. Do not apply more than 150 ppb (sum of all applications) per annual growth cycle.

Method

[Spray](#)

Rates

[field\\_rates 0](#)

[field\\_rates 1](#)

[field\\_rates 2](#)

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Timings

[N.A.](#)