



Department of Agriculture  
STATE OF HAWAII



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**LICENSED**

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**8046.5**

PERIOD **2014-2016** LIC. NO.

PERIOD **2011-2013** LIC. NO.

# WHITECAP<sup>®</sup> SC

## Aquatic Herbicide

An herbicide for management of aquatic vegetation in fresh water ponds, lakes, reservoirs, potable water sources, drainage canals and irrigation canals.

**Active Ingredient:**

|                                                                                   |              |
|-----------------------------------------------------------------------------------|--------------|
| Fluridone: 1-methyl-3-phenyl-5-[3-(trifluoromethyl)phenyl]-4(1H)-pyridinone ..... | 41.7%        |
| Inert Ingredients .....                                                           | <u>58.3%</u> |
| Total .....                                                                       | 100.0%       |

Contains 4 pounds active ingredient per gallon.

### KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

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

EPA Reg. No. 61842-11

EPA Est. No. 86088-PA-001

EPA Est. No. 61842-CA-001

Product of China - Formulated and Packaged in the United States with US and imported ingredients

Manufactured for:  
Tessenderlo Kerley, Inc.  
2255 North 44<sup>th</sup> Street, Suite 300  
Phoenix, AZ 85008-3279  
1-800-525-2803  
www.novasource.com  
rev: 01312011 TKI # 2586

Net Contents: 1 Gallon



## 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 eye.
- Call a poison control center or doctor for treatment advice.

### 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 swallowed:

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

### If inhaled

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible.
- Call a poison control center or doctor for further 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 1-866-374-1975 for emergency medical treatment information.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed, absorbed through skin, or if inhaled. Causes moderate eye irritation. Avoid breathing of spray mist. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

### ENVIRONMENTAL HAZARDS

Do not apply to water except as specified on the label. Follow use directions carefully so as to minimize adverse effects on nontarget organisms. Do not contaminate water when disposing of equipment washwaters. Trees, turf, and shrubs growing in water treated with **WhiteCap** herbicide may occasionally develop chlorosis. Do not apply in tidewater/brackish water. Lowest rates should be used in shallow areas where the water depth is considerably less than the average depth of the entire treatment site, for example, shallow shoreline areas.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

**Shake well before using.**

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container only. Do not store near feed or foodstuffs. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

**PESTICIDE DISPOSAL:** Wastes resulting from use of this product may be used according to label directions or disposed of at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

### PRODUCT INFORMATION

**WhiteCap** herbicide is a selective translocated aquatic herbicide. Applied to freshwater ponds, lakes, reservoirs, drainage canals and irrigation canals (including dry or de-watered areas of these sites), **WhiteCap** helps manage undesirable aquatic weeds. Susceptible aquatic vascular plants absorb the **WhiteCap** through the shoots and roots. For effective control, contact of **WhiteCap** with the target plants must be maintained for at least 45 days. Effective control is reduced if conditions exist that dilute the concentration of **WhiteCap** in the water.

The mode of action of **WhiteCap** 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 **WhiteCap**. Ideally, 30 to 90 days of continuous exposure to **WhiteCap** will provide optimum control of target weeds. Some plant species may not be controlled by **WhiteCap** under all conditions. Factors affecting herbicide performance include growth stage of the target weed, the time of year when **WhiteCap** is applied, and dilution or movement of treated water.

Optimum results are achieved when **WhiteCap** is applied before weeds begin to actively grow. For mature plants, the higher application rates will be required and effects due to **WhiteCap** treatment will take longer to observe.

A suitable analysis of the water to determine the concentration of **WhiteCap** is highly recommended. The most common method of water analysis for measuring fluridone concentrations which is recommended by Tessengerlo Kerley, Inc is the Enzyme-Linked Immunoassay (ELISA Test). Contact Tessengerlo Kerley, Inc for information on this test when using **WhiteCap** in treatment programs.

Application rates are shown in fluid ounces or quarts of **WhiteCap** to achieve a desired concentration of the active ingredient in parts per billion by weight (ppbw).

## PRECAUTIONS

- **Permits:** Consult with appropriate state or local water authorities before applying **WhiteCap** since state or local agencies may require permits to use **WhiteCap**.
- **Chemigation:** Do not apply **WhiteCap** through any type of irrigation system.
- **Hydroponic Farming:** Do not use **WhiteCap** treated water for hydroponic farming.
- **Greenhouse and Nursery Plants:** Do not use water which has been treated with **WhiteCap** 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 **WhiteCap** 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, **WhiteCap** 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:** Irrigation using water treated with **WhiteCap** may injure the irrigated vegetation. Instruct those who use **WhiteCap**-treated water to follow the recommended waiting periods listed in the table below and to assay the water for fluridone residues. For crops grown on low organic and sandy soils and irrigated with **WhiteCap**-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 **WhiteCap**-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 **WhiteCap** 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 over-seeded golf course greens should NOT be irrigated with **WhiteCap**-treated water. **Rotation Crops:** Do not plant members of the *Solanaceae* family on land that has been previously irrigated with water containing more than 5 ppb of fluridone. Consult an aquatic specialist prior to commencing irrigation of such sites.

| WhiteCap Application Sites <sup>a</sup> | Number of Days to Wait after WhiteCap Application Before Irrigating with WhiteCap-treated Water |                                       |                                                                                           |
|-----------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------|
|                                         | Established Tree Crops                                                                          | Established Row Crops/<br>Turf/Plants | Newly Seeded Crops/Seedbed or Areas To be Planted Including Overseeded Golf Course Greens |
| Ponds and Static Canals                 | 7                                                                                               | 30                                    | Assay required                                                                            |
| Canals                                  | 7                                                                                               | 14                                    | Assay required                                                                            |
| Lakes and Reservoirs                    | 7                                                                                               | 14                                    | Assay required                                                                            |
| Dry or De-Watered Canals                | 0                                                                                               | 0                                     | N/A                                                                                       |

**\*Ponds:** For **WhiteCap** labeling purposes, a pond is defined as a body of water 10 acres or less in size

**Lakes or Reservoirs:** For **WhiteCap** 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. **Dry and De-Watered**

**Canals:** Allow dry or de-watered canals to refill for a minimum of 24 hours before using water for irrigation after application to exposed sediments.

### AQUATIC PLANT INFORMATION

Depending on the use rate, water movement, application timing, weed growth stage and application method, **WhiteCap** will control, partially control, or will not control certain aquatic plant species. The table below categorizes the species when **WhiteCap** 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 **WhiteCap**. Aquatic plants not listed may also be controlled, partially controlled, or be tolerant to **WhiteCap**.

Before applying **WhiteCap**, identify the aquatic plants to determine their susceptibility to **WhiteCap**.

### **Vascular Aquatic Plants Controlled by WhiteCap**

| <b>Floating Plants</b>                    | <b>Emersed Plants</b>                | <b>Submersed Plants</b>                                                   | <b>Shoreline Grasses</b>             |
|-------------------------------------------|--------------------------------------|---------------------------------------------------------------------------|--------------------------------------|
| common duckweed<br>( <i>Lemna minor</i> ) | spatterdock ( <i>Nuphar luteum</i> ) | bladderwort ( <i>Utricularia</i> spp.)                                    | paragrass ( <i>Urochloa mutica</i> ) |
|                                           | water-lily ( <i>Nymphaea</i> spp.)   | common coontail<br>( <i>Ceratophyllum demersum</i> )                      |                                      |
|                                           |                                      | common elodea ( <i>Elodea canadensis</i> )                                |                                      |
|                                           |                                      | egeria, Brazilian elodea ( <i>Egeria densa</i> )                          |                                      |
|                                           |                                      | fanwort, cabomba ( <i>Cabomba caroliniana</i> )                           |                                      |
|                                           |                                      | hydrilla ( <i>Hydrilla verticillata</i> )                                 |                                      |
|                                           |                                      | naiad ( <i>Najas</i> spp.)                                                |                                      |
|                                           |                                      | pondweed ( <i>Potamogeton</i> spp.,<br>except Illinois pondweed)          |                                      |
|                                           |                                      | watermilfoil ( <i>Myriophyllum</i> spp.,<br>except variable-leaf milfoil) |                                      |

### Vascular Aquatic Plants Partially Controlled by WhiteCap

| Floating Plants                                    | Emersed Plants                                          | Submersed Plants                                                            | Shoreline Grasses                                         |
|----------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------|
| common watermeal<br>( <i>Wolffia columbiana</i> )† | alligatorweed ( <i>Alternanthera philoxeroides</i> )    | Illinois pondweed<br>( <i>Potamogeton illinoensis</i> )                     | barnyardgrass ( <i>Echinochloa crusgalli</i> )            |
|                                                    | American lotus ( <i>Nelumbo lutea</i> )                 | limnophila ( <i>Limnophila sessiliflora</i> )                               | giant cutgrass ( <i>Zizaniopsis miliacea</i> )            |
|                                                    | cattail ( <i>Typha</i> spp.)                            | tapegrass,                                                                  | reed canarygrass ( <i>Phalaris arundinaceae</i> )         |
|                                                    | creeping waterprimrose<br>( <i>Ludwigia peploides</i> ) | American eelgrass ( <i>Vallisneria americana</i> )                          | southern watergrass<br>( <i>Hydrochloa carolinensis</i> ) |
|                                                    | parrotfeather ( <i>Myriophyllum aquaticum</i> )         | watermilfoil-variable-leaf<br>milfoil ( <i>Myriophyllum heterophyllum</i> ) | torpedograss ( <i>Panicum repens</i> )                    |
|                                                    | smartweed ( <i>Polygonum</i><br>spp.)                   |                                                                             |                                                           |
|                                                    | spikerush ( <i>Eleocharis</i> spp.)                     |                                                                             |                                                           |
|                                                    | waterpurslane ( <i>Ludwigia palustris</i> )             |                                                                             |                                                           |
|                                                    | watershield ( <i>Brasenia schreberi</i> )               |                                                                             |                                                           |

† **WhiteCap** when used at the maximum use rate only provides partial control of this species.

**Vascular Aquatic Plants Not Controlled by WhiteCap\***

| <b>Floating Plants</b>           | <b>Emersed Plants</b>                         | <b>Submersed Plants</b> | <b>Shoreline Grasses</b>       |
|----------------------------------|-----------------------------------------------|-------------------------|--------------------------------|
| waterlettuce (Pistia stratiotes) | American frogbit (Limnobium spongia)          |                         | maidencane (Panicum hemitomon) |
|                                  | arrowhead (Sagittaria spp.)                   |                         |                                |
|                                  | bacopa (Bacopa spp.)                          |                         |                                |
|                                  | big floatingheart,                            |                         |                                |
|                                  | banana lily (Nymphoides aquatica)             |                         |                                |
|                                  | bulrush (Scirpus spp.)                        |                         |                                |
|                                  | floating waterhyacinth (Eichhornia crassipes) |                         |                                |
|                                  | pickerelweed, lanceleaf (Pontederia spp.)     |                         |                                |
|                                  | rush (Juncus spp.)                            |                         |                                |
|                                  | water pennywort (Hydrocotyle umbellata)       |                         |                                |

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

## PREPARATION OF WHITECAP SPRAY SOLUTIONS

Determine the amount of area (acres) to be treated. Water depths in the treatment sites should also be known so that the correct application rate is selected.

Use the steps below to prepare spray mixtures of **WhiteCap**:

1. Be sure to shake well the containers of **WhiteCap** before adding the product to the spray tank during mixing and loading operations.
2. Add  $\frac{1}{2}$  to  $\frac{3}{4}$  the required amount of water to the spray tank. Begin agitation of the spray mixture and continue agitation during the mixing operations.
3. Add the required amount of **WhiteCap** to the spray tank during the remainder of the mixing operation.
4. Continue agitation of the spray mixture during the herbicide application operation.

Make surface or subsurface applications using conventional spray equipment. Use weighted trailing hoses to apply **WhiteCap** near the surface of the hydrosol. Make applications with a spray volume of 5 to 100 gallons per acre. A metering system which mixes concentrated **WhiteCap** with water and then introduces this slurry into the suction side of the application equipment may also be used.

Note: **WhiteCap** is not corrosive to application equipment.

### Tank Mix Information

**WhiteCap SC** may be applied with other aquatic herbicides labeled for the uses listed in this label. When mixing, follow the most restrictive label limitations and precautions. No label dose rates should be exceeded. **WhiteCap SC** must not be mixed with any product containing a label prohibition against such mixing. Please contact 1-888-732-8246 for more information.

### DIRECTIONS FOR APPLICATION - PONDS

For additional application rate calculations, refer to the section How To Calculate Application Rates at the end of this label.

| Average Water Depth of Treatment Site in Feet | Fluid Ounces (or Qts.) of WhiteCap per Treated Acre To Achieve Desired Herbicide Concentration: |                            | Application Directions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               | 45 ppb                                                                                          | 90 ppb                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1                                             | 3.8 fl. oz.<br>(0.12 qts.)                                                                      | 7.7 fl. oz.<br>(0.24 qts.) | <p>Apply <b>WhiteCap</b> to the entire surface area of the pond.</p> <p><b>Single Applications:</b> Use the amount of <b>WhiteCap</b> listed to give 45 to 90 ppb fluridone in treated water. Higher rates should be used for dense weed infestations, for difficult-to-control species, and for smaller ponds (less than 5 acres in size and average water depths of less than 4 feet).</p> <p><b>Split or Multiple applications:</b> Use when dilution of the treated water is likely to occur.</p> <p>Do not exceed 90 ppb per annual growth cycle.</p> |
| 2                                             | 7.7<br>(0.24)                                                                                   | 15.7<br>(0.49)             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 3                                             | 11.8<br>(0.37)                                                                                  | 23.4<br>(0.73)             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4                                             | 15.7<br>(0.49)                                                                                  | 31.4<br>(0.98)             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5                                             | 19.5<br>(0.61)                                                                                  | 39.0<br>(1.22)             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 6                                             | 23.4<br>(0.73)                                                                                  | 46.7<br>(1.46)             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 7                                             | 27.2<br>(0.85)                                                                                  | 54.4<br>(1.70)             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 8                                             | 31.4<br>(0.98)                                                                                  | 62.4<br>(1.95)             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 9                                             | 35.2<br>(1.1)                                                                                   | 70.1<br>(2.19)             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 10                                            | 39.0<br>(1.22)                                                                                  | 78.1<br>(2.44)             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## DIRECTIONS FOR APPLICATION – LAKES AND RESERVOIRS

**WhiteCap** 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 **WhiteCap** than smaller size areas. Smaller treatment areas (less than 5 acres) or narrow strips such as boat trails or shorelines may not produce satisfactory results as **WhiteCap** 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 **WhiteCap** at an application rate of between 10 and 90 ppb. Consult the table below for the amount of **WhiteCap** 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 this label.

**Rates For Single Application of WhiteCap:**

| Average Water Depth at Treatment Site in Feet | Fluid Ounces (or Qts.) of WhiteCap per Treated Acre To Achieve Desired Herbicide Concentration: |                         |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------|
|                                               | 10 ppb                                                                                          | 90 ppb                  |
| 1                                             | 1.0 fl. oz. (0.03 qts.)                                                                         | 7.7 fl. oz. (0.24 qts.) |
| 2                                             | 1.6 (0.05)                                                                                      | 15.7 (0.49)             |
| 3                                             | 2.6 (0.08)                                                                                      | 23.4 (0.73)             |
| 4                                             | 3.2 (0.11)                                                                                      | 31.4 (0.98)             |
| 5                                             | 4.5 (0.14)                                                                                      | 39.0 (1.22)             |
| 6                                             | 5.1 (0.16)                                                                                      | 46.7 (1.46)             |
| 7                                             | 6.1 (0.19)                                                                                      | 54.4 (1.70)             |
| 8                                             | 7.0 (0.22)                                                                                      | 62.4 (1.95)             |
| 9                                             | 7.6 (0.24)                                                                                      | 70.1 (2.19)             |
| 10                                            | 8.6 (0.27)                                                                                      | 78.1 (2.44)             |
| 11                                            | 9.6 (0.30)                                                                                      | 86.0 (2.68)             |
| 12                                            | 10.2 (0.32)                                                                                     | 93.8 (2.93)             |
| 13                                            | 11.2 (0.35)                                                                                     | 101.4 (3.17)            |
| 14                                            | 12.1 (0.38)                                                                                     | 109.4 (3.42)            |
| 15                                            | 13.1 (0.41)                                                                                     | 117.1 (3.66)            |
| 16                                            | 13.8 (0.43)                                                                                     | 124.8 (3.90)            |
| 17                                            | 14.7 (0.46)                                                                                     | 132.2 (4.15)            |
| 18                                            | 15.7 (0.49)                                                                                     | 140.5 (4.39)            |
| 19                                            | 16.3 (0.51)                                                                                     | 148.2 (4.63)            |
| 20                                            | 17.3 (0.54)                                                                                     | 156.2 (4.88)            |

**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 ¼ mile of these functioning potable water intakes. Do not apply more than 150 ppb (sum of all applications) per annual growth cycle.

**Partial Lake or Reservoir Treatments:** If the chance of dilution of **WhiteCap** with untreated water is expected in partial lake or reservoir treatments, using split or multiple applications may extend the herbicide contact time with the target weeds. Use higher application rates and more frequent applications if the likelihood of untreated water diluting the **WhiteCap** concentration in the treatment area is anticipated.

Refer to the table below for additional application instructions and for use rates. For additional application rate calculations, refer to the section How To Calculate Application Rates at the end of this label.

| Partial Lake or Reservoir Treatment Site                                      | Rates and Instructions                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Treatment Areas Greater Than 1/4 Mile from a Functioning Potable Water Intake | <p><b>Single applications:</b> apply <b>WhiteCap</b> at 30 to 150 ppb.</p> <p><b>Split or multiple applications:</b> Do not exceed 150 ppb (total of all applications) per annual growth cycle. If split applications are made, maintain a sufficient concentration in the target area for a period of 45 days or longer. Use the ELISA or other analyses to ensure that the desired concentration of fluridone is maintained over time.</p> |
| Treatment Areas Within 1/4 Mile of a Functioning Potable Water Intake         | <p>One may apply a concentration of greater than 20 ppb if the application is made at least ¼ mile or more from the functioning potable water intake.</p> <p>Application rates of less than 20 ppb may be made with ¼ mile of the potable water intake but use ELISA or other methods to verify that the fluridone concentration do not exceed 150 ppb at the potable water intake.</p>                                                      |

## DIRECTIONS FOR APPLICATION – SEDIMENTS OF DRY OR DE-WATERED AQUATIC SITES

Apply **WhiteCap** at a maximum of 2 quarts in a minimum spray solution of 30-100 gallons per surface acre per annual growth cycle to sediments of dry or de-watered aquatic sites (exposed sediments of lakes and reservoirs), irrigation canals, non-irrigation canals. Apply evenly to the sediment surface below the high water line. Apply **WhiteCap** with other aquatic herbicides labeled for this use to increase efficacy when applying to sediments with high levels of organic matter.

## DIRECTIONS FOR APPLICATION – DRAINAGE CANALS AND IRRIGATION CANALS

For additional application rate calculations, refer to the section How To Calculate Application Rates at the end of this label.

| Application Site                                                            | Rates and Instructions                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Static Canals                                                               | 1 – 2 quarts per treated acre                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Moving Water Canals                                                         | <p>Optimum performance will be achieved when water flow is restricted or reduced.</p> <p>For slowly moving bodies of water, apply using techniques that maintain the fluridone concentration at 15-40 ppb for at least 45 days. Use split or multiple broadcast applications (or metering methods) to ensure a uniform concentration of fluridone. Use the ELISA or other analyses to ensure that the desired concentration of fluridone is maintained over time.</p> |
| Static or Moving Water Canals Containing a Functioning Potable Water Intake | <p>One may apply a concentration of greater than 20 ppb <b>WhiteCap</b> at least ¼ mile or greater from the functioning potable water intake. Application rates of less than 20 ppb may be made with ¼ mile of the potable water intake but use ELISA or other methods to verify that the fluridone concentration do not exceed 150 ppb at the potable water intake.</p>                                                                                              |

## HOW TO CALCULATE APPLICATION RATES

**Ponds, Lakes and Reservoirs:** Use the calculation below to determine the amount in fluid ounces of **WhiteCap** to be applied per acre to provide the desired ppb concentration of fluridone in the treated water:

Fluid Ounces of **WhiteCap** required per treated acre = (Average water depth of treatment site in feet) x (desired ppb concentration of fluridone) x 0.0027 x 32

As an example, the calculation to determine the number of fluid ounces of **WhiteCap** needed to treat one acre for a herbicide concentration of 45 ppb fluridone at a site where the average water depth is 3 feet is shown as follows:

$$3 \times 45 \times 0.0027 \times 32 = 11.7 \text{ fl. oz. per treated acre}$$

Note: Fluid ounces can be converted to quarts by dividing the number of fluid ounces by 32.

For example, 11.7 fl. oz.  $\div$  32 = 0.37 quarts.

Make sure that the calculated rate does not exceed the maximum allowable rate in pints (or quarts) per treated acre for the water depth listed in the application rate tables for the sites to be treated.

**Moving Water Drainage and Irrigation Canals:** Calculate the amount of **WhiteCap** in quarts required for the proposed application through a metering system to provide the desired ppb concentration of fluridone in the treated water as follows:

1. Determine the Cubic Feet per Second as follows:

$$\text{CFS (cubic feet per second)} = \text{Average flow rate (feet per second)} \times \text{average canal width (ft.)} \times \text{average canal depth (ft.)} \times 0.9$$

2. Calculate the Water Movement in Acre-Feet per Day:

$$\text{Water movement in acre-feet per day} = \text{CFS} \times 1.98$$

3. Amount of **WhiteCap** required:

$$\text{Acre-feet per day} \times \text{desired ppb} \times 0.0027 = \text{Quarts of } \mathbf{WhiteCap} \text{ required per day}$$

## **CONDITIONS OF SALE – LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES**

The directions on this label are believed to be reliable and must be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions, the failure to follow the label directions, or good application practices, all of which are beyond the control of Tessenderlo Kerley, Inc., or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. Tessenderlo Kerley, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use, subject to the factors noted above which are beyond the control of Tessenderlo Kerley, Inc. Except as warranted by this label, Tessenderlo Kerley, Inc. makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose. To the extent allowed by applicable law, the exclusive remedy against Tessenderlo Kerley, Inc. for any cause of action relating to the handling or use of this product is a claim of damage, and in no event shall damages or any other recovery of any kind against Tessenderlo Kerley, Inc. exceed the price of the product which causes the alleged loss, damage, injury, or other claim. To the extent allowed by applicable law, Tessenderlo Kerley, Inc. shall not be liable and any and all claims against Tessenderlo Kerley, Inc. are waived, for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income, whether or not based on the negligence of Tessenderlo Kerley, Inc. breach of warranty, strict liability in tort, or any other cause of action. Tessenderlo Kerley, Inc. and the seller offer this product, and the buyer and users accept it, subject to the foregoing conditions of sale and limitations of warranty, liability and remedies.

WhiteCap® and NovaSource are registered trademarks of Tessenderlo Kerley, Inc.  
Avast® SC and Sonar® A.S. are registered trademarks of SePRO Corp.



# WHITECAP<sup>®</sup> SC

Aquatic Herbicide

An herbicide for management of aquatic vegetation in fresh water ponds, lakes, reservoirs, potable water sources, drainage canals and irrigation canals.

Active Ingredient:  
Fluridone: 1-methyl-3-phenyl-5-[3-(trifluoromethyl)phenyl]-4(1H)-pyridinone ..... 41.7%  
Inert Ingredients ..... 58.3%  
Total ..... 100.0%

Contains 4 pounds active ingredient per gallon.

### KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

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

EPA Reg. No. 61842-11    EPA Est. No. 86088-PA-001    EPA Est. No. 61842-CA-001

Product of China - Formulated and Packaged in the United States with US and imported ingredients

Manufactured for:  
Tessenderlo Kerley, Inc.  
2255 North 44<sup>th</sup> Street, Suite 300  
Phoenix, AZ 85008-3279  
1-800-525-2803  
www.novasource.com  
rev: 01312011

Net Contents: 1 Gallon



BASE - Unwind Left side off first



# SPECTRAGRAPHICS

INCORPORATED  
14701 W. 106th Street Lenexa, Kansas 66215 Label Systems

Phone: 913.888.6828 Fax: 913.888.7377

Toll Free: 1.800.728.6828 www.spectragnraphics.com

## Proof Colors are Visual Approximations Only.

This Proof is produced using different inks, paper, and printing technology than your final product, which may result in color variations.

Flexo Specifications:

Dot Minimum 2% Conventional / 1% Digital

Print to Print Tolerance +/- 1/64"

Print to Die Tolerance +/- 3/64"

Color matched to Pantone Matching System Δ2.0 E Tolerance

To: **Brian Thomassen** Date: **2/14/12**

Company: **Tessenderlo Kerley, Inc.**

Original Proof Date: **5/9/11** Proof Revision Number: **2**

We make every effort to ensure your label layout conforms to applicable labeling laws or regulations. However, it is your ultimate responsibility to obtain proper final approval.

| DESCRIPTION                                |                     |                     |                   |
|--------------------------------------------|---------------------|---------------------|-------------------|
| <b>Whitecap Aquatic Herbicide 1 Gallon</b> |                     |                     |                   |
| <b>Base + Booklet (4.25" x 4.0")</b>       |                     |                     |                   |
| SGI LABEL NUMBER                           | DIE NUMBER          | SIZE                |                   |
| <b>25326.02</b>                            | <b>R-754</b>        | <b>4.0" x 5.0"</b>  |                   |
| COLORS                                     |                     |                     | UNWIND POSITION   |
| <b>1</b>                                   | <b>BASE</b>         | <b>BOOK</b>         | <b>4</b>          |
|                                            | PANTONE®<br>Black C | PANTONE®<br>Black C | PANTONE®<br>288 C |
|                                            |                     | PANTONE®<br>3278 C  |                   |

Please describe any changes to the attached proof:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**To ensure a timely shipment, please fax approved proof within 48 hours. Thank you.**

Signature of Authorized Customer Representative \_\_\_\_\_ Date \_\_\_\_\_

This proof has been printed with a dimensional tolerance of (+ - .031).

Proofread by: \_\_\_\_\_  
**DS**