
 <p>U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Antimicrobials Division (7510C) 1200 Pennsylvania Avenue NW Washington, D.C. 20460</p> <p>NOTICE OF PESTICIDE: <input checked="" type="checkbox"/> Registration <input type="checkbox"/> Reregistration</p> <p>(under FIFRA, as amended)</p>	<p>EPA Reg. Number: 81943-2</p>	<p>Date of Issuance: August 17, 2005</p>
	<p>Term of Issuance: Conditional</p>	
	<p>Name of Pesticide Product: Symmetry™ Algaecide</p>	
<p>Name and Address of Registrant (include ZIP Code): Phoenix Environmental Care, LLC PO Box 370 Valdosta, GA 31603-0370</p>		
<p>Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.</p>		
<p>On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.</p> <p>Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.</p> <p>This product is conditionally registered in accordance with FIFRA sec 3(c)(7)(A) provided that you:</p> <ol style="list-style-type: none"> 1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for re-registration of your product under FIFRA section 4. 2. Make the labeling changes listed below before you release the product for shipment: <ol style="list-style-type: none"> a. Add the phrase "EPA Registration Number "81943-2". 		
<p>Signature of Approving Official:  Adam Heyward Product Manager Team-34 Regulatory Management Branch II Antimicrobials Division (7510C)</p>		<p>Date: August 17, 2005</p>

the same, or express column 13 of the CSF as a ratio. If expressed as a ratio, you must document it in the guideline that the CSF would be expressed as a ratio.

4. Submit three (3) copies of the final printed label prior to releasing this product for sale.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely,



Adam Heyward
Product Manager 34
Regulatory Branch II
Antimicrobials Division (7510C)

Enclosure: (Stamped Label and review DER)

Fungicide, and other
amended for the pesticide,
registered under EPA Reg. No. 81943Z

3/7

SYMMETRY™ ALGAECIDE

For use in slow moving or quiescent bodies of water including: golf course, ornamental, fish, irrigation and fire ponds; fresh water lakes and fish hatcheries; potable water reservoirs and associated waters (rivers, streams, bays and coves); and crop and non-crop irrigation conveyance systems (canals, laterals and ditches).

Areas treated with Symmetry may be used for fishing, swimming, drinking, watering livestock and irrigating crops, turf, fairways, putting greens and ornamental plants immediately after treatment.

ACTIVE INGREDIENT

*Copper as elemental..... 8%

INERT INGREDIENTS..... 92%

TOTAL 100%

(*Derived from Copper-Triethanolamine Complex and Copper Hydroxide) – Contains 0.8 Pounds of Elemental Copper Per Gallon

KEEP OUT OF REACH OF CHILDREN WARNING – AVISO

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 INHALED	<ul style="list-style-type: none"> • 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.
IF SWALLOWED	<ul style="list-style-type: none"> • 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 to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF IN EYES	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 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	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For medical emergencies involving this product, call toll free 888-875-1724.	
See Label for Additional Precautions and Directions for Use	

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

May be fatal if inhaled. Causes eye irritation. Harmful if swallowed or absorbed through the skin. Do not breathe vapor or spray mist. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Applicators must wear: A NIOSH approved respirator with any N, R, P or HE filter and waterproof gloves. Wash thoroughly with soap and water after handling. Wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This product may be toxic to fish. Some species of fish may be killed at application rates with this product. Channel catfish are especially sensitive. Immature fish are more susceptible to injury than mature. Generally fish toxicity is reduced as water hardness increases. Consult State Fish and Game Agency or other responsible agency before applying this product to public waters.

ACCEPTED

with COMMENTS
See letter dated

AUG 17 2005

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 81943-2

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry place.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture 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 DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, 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.

DIRECTIONS FOR USE

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

GENERAL INFORMATION

Symmetry algaecide provides effective control of various filamentous, planktonic and branched algae which can occur in slow moving or quiescent bodies of water, including golf course, ornamental, fish, irrigation and fire ponds; fresh water lakes and fish hatcheries; potable water reservoirs and associated waters (rivers, streams, bays and coves); and crop and noncrop irrigation conveyance systems (canals, laterals and ditches). Symmetry is most effective when applied at the first signs of algal bloom. Water treated with Symmetry may be used to irrigate crops, turf, fairways, putting greens and ornamental plants immediately after treatment.

Symmetry may be applied by aircraft, ground sprayer or spray boat as a surface spray or as a subsurface application through weighted hoses, in an invert emulsion or mixed with a polymer, as appropriate.

In areas heavily infested with algae or aquatic weeds or if water temperature is high, treatment can result in oxygen loss from decomposition of dead vegetation. This loss can cause fish suffocation. To minimize this hazard, treat no more than 1/2 of the water body in a single operation.

Add only enough Symmetry for the actual area being treated. Wait 10 to 14 days before treating the remaining area.

Begin treatment along the shore and proceed outward in bands to allow fish to move into untreated areas.

Symmetry may be used in combination with Current or diquat for more effective control of *Hydrilla verticillata* and other vascular weeds. Symmetry may also be combined with other herbicides to improve weed control by killing algae that cover aquatic weeds and interfere with herbicide uptake.

Observe all precautions and limitations on labels of all products used in mixtures.

NOTE: Undiluted Symmetry or concentrations above 1.0 ppm Cu⁺⁺ may be injurious to crops, grass, ornamentals and other foliage. Do not apply in such a way that the concentrated product comes in contact with crops, ornamentals, grass or desirable plants. Apply only as specified on this label.

ALGAE CONTROL

Free floating (planktonic) algae, such as *Anabaena*, *Aphanizomenon*, *Chlorella*, *Dictyosphaerium*, *Euglena* and *Microcystis* are controlled using 0.2 to 0.5 ppm metallic copper depending upon severity of growth.

Mat-forming (filamentous) algae, such as *Cladophora*, *Hydrodictyon*, *Oedogonium* and *Spirogyra*, require 0.5 to 1.0 ppm metallic copper depending on growth and intensity. *Chara* and *Phormidium* are difficult to control unless treatment at 0.5 to 1.0 ppm metallic copper is initiated at the first signs of algal bloom.

FOR BEST RESULTS WITH SYMMETRY: Apply Symmetry early in the day when conditions are calm. Water temperature should be at least 60°F. Treat when algae first appears. Even distribution of Symmetry in the water will improve algae control; therefore, apply in a manner that distributes Symmetry throughout the treated area.

If desired, dilute one volume of Symmetry with 10 to 20 volumes of water before application. To ensure best results, remove large mats of floating algae manually before treatment. A second application 1 to 2 weeks after the first may be necessary for heavily infested areas.

COPPER LEVELS REQUIRED FOR CONTROL OF DIFFERENT GENERA OF ALGAE

ORGANISM	0.2 – 0.5 PPM COPPER		0.5 – 1.0 PPM COPPER	
	Cyanophyceae (Blue-green algae)	<i>Anabaena</i> <i>Aphanizomenon</i> <i>Cylindrospermum</i> <i>Gloetrichia</i> <i>Gomphosphaeria</i>	<i>Microcystis</i> <i>Oscillatoria</i> <i>Plectonema</i> <i>Polycystis</i>	<i>Calothrix</i> <i>Nostoc</i>
Chlorophyceae (Green algae)	<i>Botryococcus</i> <i>Closterium</i> <i>Coelastrum</i> <i>Draparnaldia</i> <i>Enteromorpha</i> <i>Gloecystis</i>	<i>Hydrodictyon</i> <i>Microspora</i> <i>Spirogyra</i> <i>Tribonema</i> <i>Ulothrix</i> <i>Zygnema</i>	<i>Ankistrodesmus</i> <i>Chara</i> <i>Chlorella</i> <i>Cladophora</i> <i>Crucigenia</i> <i>Desmidium</i> <i>Golenkinia</i>	<i>Nitella</i> <i>Oocystis</i> <i>Palmella</i> <i>Pithophora</i> <i>Scenedesmus</i> <i>Staurastrum</i> <i>Tetraedron</i>
Diatomaceae (Diatoms)	<i>Asterionella</i> <i>Fragilaria</i> <i>Gomphonema</i> <i>Melosira</i> <i>Navicula</i>	<i>Nitzschia</i> <i>Stephanodiscus</i> <i>Synedra</i> <i>Tabellaria</i>	<i>Achnanthes</i> <i>Cymbella</i> <i>Neidium</i>	
Protozoa (Flagellates)	<i>Ceratium</i> <i>Cryptomonas</i> <i>Dinobryon</i> <i>Euglena</i> <i>Glenodinium</i>	<i>Mallomonas</i> <i>Synura</i> <i>Uroglana</i> <i>Volvox</i>	<i>Chlamydomonas</i> <i>Eudorina</i> <i>Hawmatococcus</i>	<i>Pandorina</i> <i>Peridinium</i>

The genera of algae listed above are commonly found in waters of the United States. Use the lower recommended rate in soft water (less than 50 ppm alkalinity) and the higher concentration in hard water (above 50 ppm alkalinity). Always consult your State Fish and Game Agency or other responsible agency before applying this product to public waters.

Use the table below to determine the amount of Symmetry required to achieve the desired copper concentration. For most effective algae control, maintain the desired copper concentration for a minimum of 3 hours. Rates given below represent concentrations for quiescent or slow moving water. If water flow results in significant dilution of the treated water within 3 hours of application, it may be necessary to meter Symmetry into the water (Refer to instructions for Drip System Application below).

APPLICATION RATES FOR QUIESCENT OR SLOW MOVING WATER

Average Depth of Water of Treatment Site (Feet)	Gallons of Symmetry per Surface Acre to Achieve the Desired Copper Concentration		
	0.2 ppm Cu	0.5 ppm Cu	1.0 ppm Cu
1	0.7	1.7	3.4
2	1.4	3.4	6.8
3	2.0	5.1	10.2

SUMMER APPLICATION (Stratified Lakes) – When the average depth exceeds 4 feet and the lake is known to be stratified, it is necessary to treat only the upper 6 feet of water.

SPRING/FALL APPLICATION (Unstratified Lakes) – Treat the entire body of water, remembering to treat no more than 1/2 of the water body at a time to reduce the possibility of adverse effects on the fish population.

METHODS OF APPLICATION

SURFACE APPLICATION: Spray diluted mixture from shore or boat evenly across the surface of the water.
SUBSURFACE APPLICATION: In deeper water, make a subsurface application of Symmetry at recommended rates through weighted trailing hoses where the greatest concentration of algae is present. Do not drag hoses on the bottom.
POLYMER APPLICATION: A polymer may be added to Symmetry or to a Symmetry/water premix to improve sinking, deposition and retention of the spray. Consult the manufacturer's recommendations regarding the use of a polymer for improved algae control.

INVERT EMULSIONS: Symmetry may be subsurface applied alone or in combination with other herbicides, including diquat (see below), by injecting the products in an invert emulsion carrier. Invert applications should be made through weighted hoses dragged below the surface of the water.
Observe all precautions and limitations on the labels of all products used with Symmetry.

AIRCRAFT APPLICATION: Apply the recommended rate of Symmetry in 20 gallons of total spray solution per surface acre. Add the recommended rates of a drift control or sinking agent to the spray solution. Maintain constant agitation during addition of the polymer and continue throughout the application. When treating moving water, apply the spray solution counter to the flow of water.

DRIP SYSTEM APPLICATION

FOR USE IN IRRIGATION CONVEYANCE SYSTEMS AND OTHER MOVING WATER

For best results, application should be made in anticipation of algae that may interfere with normal flow or delivery of water (obstruction of lateral headgates, screens, pumps, pumping systems and siphon tubes). Delayed treatment may result in matting or compaction of algae mats. Since low flow rates may result in poor chemical distribution and unsatisfactory algae control, it may be necessary to increase water flow rates during treatment.

Determine the water flow rate prior to treatment of the water system. If available, use weirs, orifices or similar devices which give accurate water flow measurements. If these devices are not available, volume of flow may be estimated by the following formula:

Average Width (feet) x Average Depth (feet) x Average Velocity (feet/second) x 0.9 = Cubic Feet per Second (C.F.S.)
To determine velocity, measure the time it takes a floating object in the middle of the canal to travel a given distance. Divide the distance traveled (feet) by the time (seconds) for velocity (feet/second). Repeat this procedure at least three times and then calculate the average velocity. Use the average velocity (feet/second) in the formula above to determine the flow rate (C.F.S.).

Once the water flow rate (C.F.S. or Gallons per Minute) has been calculated, find the corresponding drip rate for Symmetry in the table below.

APPLICATION RATES FOR MOVING WATER

WATER FLOW RATE			SYMMETRY DRIP RATE	
C.F.S.	GAL. / MIN.	QTS. / HR.	ML. / MIN.	FL. OZ. / MIN.
1	500	1.25	20	0.7
2	1000	2.50	40	1.3
3	1500	3.75	60	2.0
4	2000	5.00	80	2.3
5	2500	6.25	100	3.3

Determining Amount of Symmetry: The rates shown above will produce a concentration of 1.0 ppm Cu^{**} in treated water. This concentration should be maintained for at least 3 hours. To determine the total amount of Symmetry needed to maintain the drip rate for 3 hours, calculate as follows: Qts./Hr. x 3; or Ml./Min. x 180; or Fl. Oz./Min. x 180. Thorough mixing is necessary to uniformly disperse Symmetry in the water; therefore, apply Symmetry in the channel at weirs or other structures which create turbulence or at several injection points across the flow.

Calibrating For Drip Application (Gravity Feed): Pour the amount of Symmetry needed to treat for 3 hours (calculated above) into a drum or tank equipped with a brass needle valve designed to maintain a constant drip rate. Open the needle valve and allow Symmetry to drip into a graduated container (measuring cup, graduated cylinder, etc.), using a stop watch to measure the time required to reach the desired volume. Adjust the valve so that Symmetry is dripping at the desired rate. **NOTE:** If the flow rate changes during the 3 hour treatment period, it may be necessary to readjust the needle valve. If power is available, a small pump can be used to meter Symmetry into the water more accurately.

Distance of algae control from the application point will vary with severity of infestation. Repeat application at a point 3 hours downstream from the previous treatment station. Repeat as necessary to treat entire infested area. It may be necessary to periodically repeat treatments to maintain seasonal control.

HYDRILLA VERTICILLATA CONTROL

Tank mix Symmetry with Current™ or diquat to kill algae that cover *Hydrilla verticillata* and interfere with herbicide uptake. Observe all precautions and limitations on the Current™ and diquat labels.

Symmetry + Current Tank Mix: Apply 1.7 to 3.4 gallons of Symmetry plus 3.34 gallons of Current per acre-foot of water when water temperature is above 60°F. Use the low rate of Symmetry for light algae infestations or easy-to-control species. Use the high rate of Symmetry for heavy algae infestations or difficult-to-control species. Apply using an application method which provides uniform coverage of the treated area and delivers the spray solution to the plant surface.

Symmetry + Diquat Tank Mix: Apply 4 gallons of Symmetry plus 2 gallons of diquat per surface acre in bright sunlight when water is above 60°F.

Surface Application: Apply by handgun, spray boat, aircraft or other method of application which provides uniform coverage of the treated area. Combine Symmetry and diquat with water in a mix tank or use an injection system to make approximately 100 gallons for each surface acre treated. When using a spray boat, apply the mixture through hoses which are dragged as close to the bottom as possible. For best results, do not drag hoses on the bottom. Complete effect of the treatment will be observed in 8 to 12 weeks. In heavily infested areas, a second application after 12 weeks may be necessary.

Subsurface Application: Use a boom with trailing hoses fitted with Delavan or Spraying System 80-degree nozzle tips with 06 orifices, or a similar nozzle. Hoses 18 to 24 inches long will apply the material 3 to 6 inches below the water surface. Apply from the bow or stern of the boat in strips no more than 20 feet apart.

Bottom Placement: In firm, sandy-bottomed lakes where water is quiescent or slowly moving and Hydrilla has reached the surface, apply in a water carrier, injecting the diluted Symmetry plus diquat mixture 1 to 2 feet above the bottom using weighted, trailing hoses. Where water is slowly moving through submersed growth, or if suspended silt or muddy water are present, apply in an invert emulsion carrier, injecting the Symmetry™ plus diquat mixture 1 to 2 feet above the bottom using weighted, trailing hoses.

FISH NOTE

Symmetry may be toxic to trout and other species of fish. Fish toxicity generally decreases when the hardness of the water increases.

IRRIGATION WITH TREATED WATER

When applied according to label instructions, water treated with Symmetry may be used for irrigation immediately after treatment.

WARRANTY STATEMENT

PHOENIX warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials or the manner of use or application, all of which are beyond the control of PHOENIX. In no case shall PHOENIX be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. The exclusive remedy of any buyer or user of this product for any and all losses, injuries, or damages resulting from or in any way arising from the use, handling, or application of this product, whether in contract, warranty, tort, negligence, strict liability, or otherwise, shall not exceed the purchase price paid for this product or at PHOENIX'S election, the replacement of this product. PHOENIX MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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