AquaVet™

ALGAE CONTROL

COPPER SULFATE

Control Algae in impounded water, lakes and ponds

Control of algae and bacterial odors in **Swimming Pools**

Sewer Treatment–Root Destroyer

ACTIVE INGREDIENT:

Copper Sulfate Pentahydrate:* CAS #7758-99-8	99.0%
OTHER INGREDIENTS:	1.0%
TOTAL:	100.0%

*Metallic Copper Equivalent: 25.2%

ATTENTION: This product contains chemicals known to the State of California to cause cancer and birth defects.

EPA Reg. No. 46923-4-12281
EPA Est. No. 88802-FL-001
EPA Est. No. 90549-GA-001

Dist. by Durvet, Inc.
100 S.E. Magellan Drive
Blue Springs, MO 64014

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.)

See back label for first aid and additional precautions

MADE IN THE USA

NET WEIGHT **FIVE POUNDS** · 2.267 KG

durvet

AquaVet COPPER SULFATE

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 SWALLOWED: Call a poison control center or doctor for treatment advice. Have a 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 poison control center or doctor for further treatment advice. IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for further treatment advice.

HOTLINE SERVICE: Have the product container or label with you when calling a poison control center or doctor, or for going for treatment. You may contact 800-275-3924 for emergency medical information. NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

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. For applications in waters destined for use as drinking water, those waters must receive additional and separate potable water treatment. Do not apply more than 1.0 ppm as metallic copper to these waters.

STORAGE AND DISPOSAL Do not contaminate food or feed by storage or disposal.

PESTICIDE STORAGE: Store in original container and place in a locked storage area.

PESTICIDE DISPOSAL: Call your local solid waste agency for disposal instructions. Unless otherwise instructed, place in trash. Never pour unused product down the drain or on the ground. CONTAINER DISPOSAL: If empty – Non-refillable container. Do not reuse or refill this container. Do not rinse unless required for recycling. Place in trash or offer for recycling if available. If partially filled – Call your local solid waste agency for disposal instructions. Unless otherwise instructed, place in trash. Never pour unused product down a drain or on the ground.

REFER TO SUPPLIED PAMPHLET FOR ADDITIONAL DIRECTIONS FOR USE

EPA Reg. No. 46923-4-12281 EPA Est. No. 88802-FL-001 EPA Est. No. 90549-GA-001

ENVIRONMENTALLY HAZARDOUS
SUBSTANCE SOLID, N.O.S. (CUPRIC SULFATE), 9,
UN3077, PG III, RQ, CAS NO. 7758-99-8

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ISS14XB01

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IF SWALLOWED: • Call 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 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 poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call poison control center or doctor for further treatment advice.

HOTLINE SERVICE

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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. For applications in waters destined for use as drinking water, those waters must receive additional and separate potable water treatment. Do not apply more than 1.0 ppm as metallic copper to these waters.

PERSONAL PROTECTIVE EQUIPMENT: Applicators and other handlers must wear the following: Long sleeve shirt, long pants, shoes plus socks, protective eyewear such as goggles, face shield or safety glasses, chemical resistant gloves made of any waterproof material. Some materials that are chemical resistant to this product are polyvinyl chloride, nitrile rubber or butyl rubber. If you want more options, follow the instructions for category A on an EPA chemical resistant category selection chart. Follow manufacturer's instructions for cleaning or maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS: • Users should wash hands before eating, drinking, chewing gum, using tobacco, or using toilet. • Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. • Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

AQUATIC USES: This product is toxic to fish and aquatic invertebrates. Water treated with this product may be hazardous to aquatic organisms. Treatment of aquatic weeds and algae can result in oxygen loss from decomposition of dead algae and weeds. This oxygen loss can cause fish and invertebrate suffocations. To minimize this hazard, do not treat more than ½ of the water body to avoid depletion of oxygen due to decaying vegetation. Wait at least 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Consult with State or local agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is required. Certain water conditions including low pH (<6.5), low dissolved organic carbon (DOC levels (3.0 mg or lower), and soft waters (i.e. alkalinity less than 50 mg/L), increase the potential acute toxicity to non-target aquatic organisms.

TERRESTRIAL USES: This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly drained soils and soils with shallow water tables are more prone to product runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms adjacent to treated areas. Do not apply directly to water, or to area where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment, wash water, or rinsate.

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 adults, children, or pets, either directly or through drift. Do not allow adults, children, or pets to enter the treated area until dusts have settled.

STORAGE AND DISPOSAL

Do not contaminate food or feed by storage or disposal.

PESTICIDE STORAGE: Store in original container and place in a locked storage area.

PESTICIDE DISPOSAL: Call your local solid waste agency for disposal instructions. Unless otherwise instructed, place in trash. Never pour unused product down the drain or on the ground.

CONTAINER DISPOSAL: If empty - Non-refillable container: Do not reuse or refill this container. Do not rinse unless required for recycling. Place in trash or offer for recycling if available. If partially filled - Call your local solid waste agency for disposal instructions. Unless otherwise instructed, place in trash. Never pour unused product down a drain or on the ground.

GENERAL INSTRUCTIONS FOR USE IN ALGAE CONTROL

When using Copper Sulfate to control algae, there are many factors to consider such as water hardness, temperature of the water, type and quantity of vegetation to be controlled and the amount of water flow. Algae can be controlled more easily and effectively if treatment with Copper Sulfate is made soon after plant growth has started. Under such circumstances, small amounts of Copper Sulfate can effectively control algae in water. However, if treatment is delayed until large amounts of algae are present larger quantities of Copper Sulfate will be required. Control of algae in water systems is not always permanent. Usually algae is more difficult to control with Copper Sulfate when water temperatures are low. The dose rates for Copper Sulfate are based on a water of 60°F or higher. Larger amounts of Copper Sulfate will be required in hard water. Normally, larger quantities of Copper Sulfate will be required to kill algae in water that is flowing than in a body of stagnant water. If possible, curtail the flow of water before treatment and hold dormant for about three days after treatment or until plants have begun to die. When preparing a Copper Sulfate solution in water, it is best that the mixing vessel be made of plastic or glass. Metal containers lined with plastic or painted or enameled are permissible. Galvanized containers are to be avoided. It is best to treat algae on calm, sunny days when heavy mats of filamentary algae are most likely to be floating on the surface where it can be sprayed directly. When in doubt about the concentration to be used, it is recommended to start with a lower concentration and gradually increase the concentration until the algae is killed.

CALCULATIONS FOR AMOUNT OF WATER AND COPPER SULFATE PENTAHYDRATE TO BE USED.

A. CALCULATE water volume as follows:
1. Obtain surface area by measuring regular shaped ponds or mapping irregular ponds or by use of previously recorded data or maps.
2. Calculate average depth by sounding in a regular pattern and taking the mean of these readings or by use of previously recorded data.
3. Multiply surface area by square feet by average depth in feet to obtain cubic feet of water volume, or
4. Multiply surface area in acres by average depth in feet to obtain total acre feet of water volume.

B. CALCULATE weight of water to be treated as follows:
1. Multiply volume in cubic feet by 62.44 to obtain total pounds of water, or
2. Multiply volume in acre feet by 2,720,000 to obtain total pounds of water.

C. CALCULATE amount of Copper Sulfate Pentahydrate to add:
To calculate the weight of Copper Sulfate Pentahydrate needed to achieve the desired concentration, multiply the weight of water in pounds by the recommended concentration. Since the recommended concentrations are given in parts per million (ppm), first convert the value to a decimal equivalent. A value of 1 ppm is equivalent 0.000001 as a decimal value. Thus the amount of Copper Sulfate Pentahydrate required to treat 1 acre-foot (2,720,000 lbs.) of water with 1 ppm of Copper Sulfate Pentahydrate would be 0.000001 x 2,720,000=2.72 lbs. Copper Sulfate.

Treatment of algae can result in oxygen loss for decomposition of dead algae. This loss can cause fish suffocation. Therefore to minimize this hazard, treat 1/3 to 1/2 of the water area in a single operation and wait 14 days between treatments. Begin treatments along the shore and proceed outwards in bands to allow fish to move into untreated water. NOTE: If treated water is to be used as a source of potable water, the metallic copper residual must not exceed 1 ppm (4 ppm Copper Sulfate Pentahydrate).

SPECIFIC INSTRUCTIONS

TO CONTROL ALGAE IN IMPOUNDED WATER, LAKES AND PONDS: There are several methods by which to apply Copper Sulfate to impounded water. Probably the simplest and the most satisfactory method is to dissolve the Copper Sulfate crystals in water and spray the solution over the body of water. A small pump mounted in the boat can easily be used for this purpose. Copper Sulfate may be broadcast directly on the water surface from a boat. Where the situation permits, Copper Sulfate may be applied under the water by dragging burlap bags filled with Copper Sulfate through the water by means of a boat. Begin treatment along the shoreline and proceed outward until 1/3 to 1/2 of the total area has been treated. Care should be taken that the course of the boat is such as to cause even distribution of the chemical. In large lakes, it is customary for the boat to travel in parallel lines about 20 to 100 feet apart. Continue dragging the burlap bags over the treated area until the minimum dosage is achieved and all the crystals have been dissolved. The minimum treatment interval is 14 days. If the treated water is to be used as a source of potable water, the metallic copper concentration must not exceed 1 ppm (4 ppm Copper Sulfate).

COPPER SULFATE REQUIRED FOR TREATMENT OF DIFFERENT GENERA OF ALGAE: The genera of algae listed below are commonly found in impounded water, lakes, ponds, and reservoirs in the United States. Use the lower recommended rate of Copper Sulfate in soft waters (less than 50 ppm methyl orange alkalinity) and higher concentration in hard water (above 50 ppm alkalinity). NOTE: Do not use concentration of 1½ ppm or more where fish are present. Concentrations up 6 ppm are permitted in waters such as rice fields where fish are not present. Always consult State Fish and Game Agency before applying this product to municipal waters.

CONCENTRATION	¼ to ½ ppm	½ to 1 ppm	1 to 1½ ppm	1½ to 2 ppm
POUNDS/ACRE FOOT	.67 to 1.3	1.3 to 2.6	2.6 to 3.9	3.9 to 5.3
ORGANISM: CYANOPHYCEAE (Blue Green)	Anabaena Anacystis Aphanizomenon Gloeotrichia Gomphosphaeria Polycystis Rivularia	Cylindrospermum Oscillatoris Plestonema	Nostoc Phormidum	Calothrix Symploca
ORGANISM: CHLOROPHYCEAE (Green)	Closterium Hydrodictyon Spirogyra Ulothrix	Botryococcus Cladophora Coelastrum Drapamaldia Enteromorphia Gloeocystis Microspora Tribonema Zygnema	Chlorella Crucigenia Desmidium Golenkinia Oocystis Palmelia Pithiphora Staurastrum Tetraedron	Ankistrodesmus Chara Nitella Scenedemus
ORGANISM: DIATOMACESE (Diatoms)	Asterionella Fragilaria Melorisa Navicula	Gomphonema Nitzschia Stephanodiscus Synedra Tabellaria	Achnanthes Cymbella Neidum	
ORGANISM: PROTOZOA (Flageliates)	Dinobryon Synura Uroglena Volvox	Ceratium Cryptomonas Euglena Glenodinium Mallomonase	Chlamydomonas Hawmatococcus Peridinium	Eudorina Pandorina

CONTROL OF ALGAE AND BACTERIAL ODORS IN SWIMMING POOLS

To treat and prevent algae and odors, apply 1 tablespoon of Copper Sulfate for every thousand gallons of pool water. This will result in a concentration of 1.0 ppm of dissolved copper. Prior to application, the pH of the pool should be 7.2-7.6. Dissolve the Copper Sulfate in water in a plastic container and pour the solution into the pool around the edge of the pool. Never add Copper Sulfate while swimming. As soon as the solution disperses in the pool water, you may reenter the pool.

Using a copper test kit (this may be purchased at any pool supply store) check copper levels every 2 weeks. As needed, apply a maintenance dosage to maintain a 0.7 to 1.0 ppm concentration. Prior to application, the pH of the pool should be 7.2-7.6. Dissolve the required amount of Copper Sulfate in a plastic container and pour the solution into the pool around the edge of the pool.

Most pool shock products may be used with this product. During heavy usage shock pool once a week and use a filter clarifier. Copper Sulfate is a very simple and easy way to maintain your pool water looking crystal clear year round with very little maintenance. When used as directed Copper Sulfate may be used for all pools (consult your pool professional on plaster or finished concrete pools before adding).

THIS POOL MAINTENANCE FORMULA: Is simple to use; Has no chlorine smells; May be used with any type of filter system; Controls algae and bacterial odors; Has very little effect on pH; Unlike other products Copper Sulfate will not evaporate out of your water; Compatible with most pool chemicals.

SEWER TREATMENT-ROOT DESTROYER

NOTE: Do not use a sewer additive where prohibited by State Law. State Law prohibits the use of this product in sewer systems in the State of Connecticut. Not for sale or use in California counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma for root control in sewers. Not for sale or use in septic systems in the State of Florida.

Plant roots can penetrate through small cracks and poorly sealed joints of sewer lines. If not controlled, these small roots will continue to grow larger in number causing breakage, reduced flow and eventually flow stoppage. This product has been known to be an effective means to control roots in residential and commercial sewers.

As a preventative measure, apply into each junction or terminal manhole. Two pounds of this product every 6 to 12 months. At time of reduced flow (some water is essential) add this product. If flow has not completely stopped, but has a reduced flow due to root masses, add this product in the next manhole above the reduced flow area. For complete stoppage, penetrate the mass with a rod to enable some flow before treatment.

RESIDENTIAL OR HOUSEHOLD SEWER SYSTEMS: When a reduced water flow is first noticed, and root growth is thought to be the cause, treat with this product. It is important not to wait until a stoppage occurs because some water flow is necessary to move this product to the area of root growth. Usually, within 3 to 4 weeks, after roots have accumulated sufficient Copper Sulfate Pentahydrate, the roots will die and begin to decay and water flow should increase. As the roots re–grow, follow-up treatments with this product may be required every 6 months. Applications may be made each year in the spring after plant growth begins, during late summer or early fall, or anytime a reduced water flow, thought to be caused by root growth, occurs. Apply one pound of this product every 6 months to household sewers. Add this product to sewer lines by pouring about 1/2 pound increments into the toilet bowl nearest the sewer line and flush. Repeat this process until recommended dose has been added. Or remove cleanout plug and pour entire recommended quantity directly into the sewer line. Replace the plug and flush toilet several times. Do not apply Copper Sulfate through sink or tub as it will corrode metal drains. If system is equipped with septic tank, Copper Sulfate will precipitate in the septic tank and little will pass into the absorption drain field. To treat drain field pipes, add 2 lbs. of Copper Sulfate once a year to the distribution box located between the septic tank and the drain field. If the distribution box does not have an opening, it would be advisable to install a clean out plug opening into the outlet pipe from the septic tank leading to the drain field for effective root control in the drain field pipes.

CONDITION OF SALE
LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

Read and follow all package directions carefully. Purchaser and user assume all risks associated with improper use, or application or other factors beyond Durvet's control. Durvet, 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 risks referred above. DURVET INC. MAKES NO EXPRESS WARRANTY AND THE LAW SHALL NOT FIND ANY EXPRESSED OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. To the extent consistent with applicable law, purchaser's use and sole remedy against Durvet, Inc. for any cause of action related to the handling or use of this product shall be for damages, for the amount of which shall not exceed the price paid for the product that causes the alleged loss, damages, injury, or other claim to the extent consistent with applicable law. In no event shall Durvet, Inc. be liable for special, indirect, incidental or consequential damages or expenses. By purchasing or using this product, purchaser or user accepts the foregoing conditions of sale and limitation of warranty, liability, and remedies.

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