

**APPLICATION AND HANDLING EQUIPMENT**

Application, handling or storage equipment MUST consist of fiberglass, PVC, polypropylene, viton, corrosion resistant plastics or stainless steel. Never use mild steel, nylon, brass or copper around EarthTec®. Always rinse and clean equipment thoroughly each night with plenty of fresh, clean water.

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal. **PESTICIDE STORAGE:** Store in a safe place away from pets and keep out of the reach of children. Store away from excessive heat. EarthTec® will freeze. Always store EarthTec® above 32 degrees F (Do Not Freeze). Freezing may cause product separation.



Always keep container closed. Store EarthTec® in its original container only. Keep away from galvanized pipe, and any nylon storage or handling equipment.

**DISPOSAL**

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess EarthTec® 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. In the event of spill, neutralize with limestone or baking soda before disposal. May deteriorate concrete.

**CONTAINER HANDLING**

Nonrefillable container. Do not reuse or refill this container. 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 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 2 more times. Offer for recycling if available. If recycling is not available, 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.

**IMPORTANT**

**READ BEFORE USING**

**LIMITED WARRANTY AND LIMITATION OF REMEDIES**  
Read the entire Directions for Use, Limited Warranty and Remedies (including limitations on liability) before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following conditions, disclaimer of warranties and limitations of liability.

The Directions for Use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Earth Science Laboratories, Inc. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

To the extent consistent with applicable law, seller warrants that the product conforms to the chemical description and is reasonably fit for the purpose stated on the label for use under normal conditions, but makes no other warranties of FITNESS OR MERCHANTABILITY expressed or implied, or any other warranty if the product is used contrary to the label instructions, or under conditions not foreseeable to the seller. To the extent consistent with applicable law, the seller shall not be liable for more than the cost of this product to the buyer and will in no event be liable for any consequential, special or indirect damages connected with the use or handling of this product. This product is offered and the buyer or user accepts it subject to the foregoing terms which may not be varied. Seller makes no warranty for product which has been frozen.

**Manufactured by:**  
Earth Science Laboratories, Inc.  
113 SE 22nd Street, Suite 1  
Bentonville, AR 72712  
Phone: (800) 257-9283  
www.cleanwaterfortheplanet.com



**ALGICIDE/  
BACTERICIDE \***



Certified to NSF/ANSI 60

**For Impounded Waters, Lakes, Ponds, Lagoons, Wastewater Lagoons, Reservoirs, Livestock Watering Systems, Potable Water Supplies\*, Sedimentation Basins and Ornamental Water Features or Fountains For Irrigation Conveyance Systems, Irrigation Reservoirs, Irrigation Canals and Ditches For Feedlot Run-Off Lagoons, Animal Waste or Confinement Pits and Organic Sludge Pits**

\*Nonpublic Health Bacteria  
\*Water Destined to Be Used as Drinking Water

ACTIVE INGREDIENT  
Copper Sulfate Pentahydrate\* (CAS No. 7758-99-8)..... 19.8%  
OTHER INGREDIENTS..... 80.2%  
Total ..... 100.0%  
\*Metallic Copper ..... 5%

THIS PRODUCT WEIGHS 9.9 LB. PER GALLON - 1.188 kg/L.

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EPA REGISTRATION NO. 64962-1  
EPA ESTABLISHMENT NO. 64962-NE-001

NET CONTENTS: ONE (1) U.S. GALLON

Lot No.

**KEEP OUT OF REACH OF CHILDREN  
WARNING • AVISO**

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

**FIRST AID**

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for advice.

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

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of soap and water for 15 to 20 minutes. Call a poison control center or doctor for treatment.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact INFOTRAC 1-800-535-5053 for emergency medical treatment.

SEE ADDITIONAL PRECAUTIONARY STATEMENTS ON SIDE PANEL.

**PRECAUTIONARY STATEMENTS**

Hazards to Humans and Domestic Animals  
**WARNING**

Causes substantial but temporary eye injury. Harmful if swallowed. Harmful if absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Wear protective eyewear (goggles, face shield or safety glasses), long sleeved shirt, long pants, shoes, socks and chemical-resistant gloves made of any waterproof material. Some materials that are chemical-resistant to this product are polyvinyl chloride, polyethylene and viton. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and aquatic invertebrates. Waters 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 suffocation. To minimize this hazard, do not treat more than 1/2 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 outward in bands to allow fish to move into untreated areas. Consult with the 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/L or lower) and "soft" waters (i.e. alkalinity less than 50 mg/L) increases the potential acute toxicity to non-target aquatic organisms. The application rates on this label are appropriate for water with alkalinity greater than 50 mg/L. Do not use these application rates for water with less than 50 ppm alkalinity (e.g., soft or acid waters) because trout and other species of fish may be killed under such conditions.

Consult your local state fish and game agency before applying this product to public waters. Permits may be required before treating such waters. 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 in these waters.

**PERSONAL PROTECTIVE EQUIPMENT**

**USER SAFETY REQUIREMENTS**

Mixers, loaders, applicators and other handlers must wear the following:

- Long-sleeved shirt
- Long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material (Chemical Resistance Category A)
- Protective eyewear

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

**USER SAFETY RECOMMENDATIONS**

- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the 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.
- Wash the outside of gloves before removing.

**DIRECTIONS FOR USE**

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirement specific to your state and tribe, consult the agency responsible for pesticide regulation.

**USE INFORMATION**

EarthTec® is a highly soluble formulation. EarthTec® is used to control algae and to suppress nonpublic health bacteria and bacteria that cause taste and odor problems in impounded waters, lakes, ponds, lagoons, wastewater lagoons, reservoirs, livestock watering systems, potable water supplies, sedimentation basins and ornamental water features or fountains.

EarthTec® is used to control algae and to suppress nonpublic health bacteria and bacteria that cause taste and odor problems in irrigation conveyance systems, irrigation reservoirs, irrigation canals and ditches.

EarthTec® is used to suppress nonpublic health bacteria and bacteria that cause odors (such as odors from hydrogen sulfide and ammonia gas) in feedlot run-off lagoons, animal waste or confinement pits and organic sludge pits.

**USE IN CONTROL OF ALGAE, NONPUBLIC HEALTH BACTERIA, AND BACTERIA THAT CAUSE ODOR PROBLEMS**

For algae control, apply in the late spring or early summer when algae first appear. The dosages are variable and depend upon algae species, water hardness, water temperature, amount of algae present, as well as whether water is clear, turbid, flowing or static. Preferably, the water should be clear with temperature above 60 degrees F (15.6 degrees C). Higher dosages are required at lower water temperatures, higher algae concentrations and for hard waters. See Specific Directions for Use. Application should be done by pouring a measured amount of EarthTec® directly from a container into the lakes, ponds, reservoirs or irrigation canals. EarthTec® is very soluble and will quickly disperse. EarthTec® application for 3 acres or less should be poured directly into ponds, small lakes and reservoirs. EarthTec® application for 3 acres or more should be applied at several points in the ponds, lakes or reservoirs. Larger bodies of water can be treated with EarthTec® by dragging a feeder hose behind a boat across the body of water. This will speed up the dispersal of the product to give a quicker control of algae. EarthTec® will quickly diffuse throughout the water body in several hours. EarthTec® should be applied to irrigation by a drip system or feeder pump according to the flow volume. Use higher dosages for chara, nitella and filamentous algae and lower dosages for planktonic algae. If there is uncertainty about the dosage begin with the lower dosage and increase until control is achieved or until the maximum allowable level has been reached. See Specific Directions for Use.

Treatment of algae can result in oxygen loss from the decomposition of dead algae. This loss can cause fish suffocation. If the algae cover more than 1/3 of the total water area, treat in sections. Treat 1/2 of the water area in a single operation and wait for 14 days between treatments. Begin treatment along the shore and proceed outward in bands to allow fish to move into untreated areas. In regions where ponds freeze in winter, treatment should be done 6 to 8 weeks before expected freeze to prevent masses of decaying algae under an ice cover. Before treating bodies of water, consult proper state authorities such as the fisheries commission or conservation department to obtain any necessary permits. For use in controlling algae and cyanobacteria at all aquatic application sites do not exceed a copper concentration in water of 1.0 ppm of metallic copper concentration.

For example, if you wish to achieve 1.0 ppm of metallic copper, 1 gallon of EarthTec® added to 60,000 gallons of water is equal to 1.0 ppm metallic copper. In order to attain 1.0 ppm of metallic copper in the treated water, the amount of EarthTec® added to a water body is equal to the gallons of water being treated divided by 60,000 multiplied by 1 (e.g., see Gallons of EarthTec® and Water table below). Use volumetric measurement devices that are calibrated in accordance with manufacturer specifications.

Gallons of EarthTec® and Water		
Gallons EarthTec®	Gallons Water	Metallic Copper ppm
0.1 (0.4 quarts or 0.8 pints)	6,000	1.0
1/4 (1 quart)	15,000	1.0
1	60,000	1.0
1 2/3	100,000	1.0

Use formula for calculating water volume and flow rates. Calculate the volume of water (multiply the average depth by surface area). To calculate the gallons of water multiply the volume in cubic feet times 7.5. One cubic foot per second of flow equals 27,000 gallons/hour. One acre foot equals 326,000 gallons. See below for additional directions on methods of application to flowing water.

**SPECIFIC DIRECTIONS FOR USE**

**To Control Algae, Nonpublic Health Bacteria, and Bacteria That Cause Odor Problems in Irrigation Reservoirs, Impounded Waters, Lakes, Ponds, Lagoons, Reservoirs, Livestock Watering Systems, Potable Water Supplies, Sedimentation Basins and Ornamental Water Features or Fountains:** For fish-bearing lakes, ponds, drinking water reservoirs, irrigation canals and other applications, apply at the rate of 1 quart of EarthTec® per 250,000 gallons of water, or 1 gallon of EarthTec® per 1,000,000 gallons of water for preventive treatment of algae and nonpublic health bacteria. This will yield a concentration of 0.06 ppm metallic copper.

If algae are present, treat at the rate of 3 quarts of EarthTec® per 250,000 gallons of water, or 3 gallons of EarthTec® per 1,000,000 gallons of water. This will yield a concentration of 0.18 ppm metallic copper.

For applications without fish or for wastewater lagoons apply at the rate of up to 1 quart of EarthTec® per 15,000 gallons of water, or 1 gallon of EarthTec® per 60,000 gallons of water. This will yield a rate of 1.0 ppm metallic copper.

Do not exceed 1 gallon of EarthTec® per 60,000 gallons of water (1.0 ppm metallic copper) under any circumstances. EarthTec® may be poured into the water manually after calculating the volume of water to be treated and measuring the quantity of EarthTec® necessary to attain a concentration of 0.06 ppm or by using an automated dispenser calibrated to release the required amount. For best results disperse EarthTec® evenly throughout the body of water on a sunny day when algae are near the surface. Do not apply copper sulfate to water with less than 50 ppm alkalinity.

**To Control Algae or Nonpublic Health Bacteria and Bacteria That Cause Odor Problems in Open Channel Irrigation Conveyance Systems, Ditches, Canals and Similar Irrigation Conveyances:** To prevent algae growth using a static application method, apply 1 gallon of EarthTec® to 1,000,000 gallons of water to yield a rate of 0.06 ppm metallic copper in the water. If algae are present, apply 16.6 gallons of EarthTec® to 1,000,000 gallons of water to yield 1.0 ppm metallic copper. To prevent algae growth using continuous flow systems, a metered flow rate of 1 milliliter per minute is added to a pumping flow of 267 gallons per minute to yield a rate of 0.06 ppm metallic copper. If algae are present, do not exceed the total dose of 1 gallon of EarthTec® in 60,000 gallons of water (1.0 ppm metallic copper). See Example Calculation table below for continuous flow rates.

**To Control Algae or Nonpublic Health Bacteria and Bacteria That Cause Odor Problems in Sprinkler, Drip or Other Types of Irrigation Equipment:** Agitation is not required. Do not mix with basic substances. EarthTec® must be applied continuously for the duration of the water application. To prevent growth of algae, nonpublic health bacteria, and bacteria that cause odor problems, treat at a rate of 1 gallon EarthTec® per 60,000 gallons of water to 1 gallon EarthTec® per 1,000,000 gallons of water. This will yield a rate of 1.0 ppm metallic copper (see Example Calculation table below). If algae are visible, start by cleaning the pipes or lines and then applying 1 gallon of EarthTec® in 60,000 gallons of water (1.0 ppm metallic copper). See Example Calculation table below for continuous flow rates. Once the lines are cleaned, use the preventive dose described above.

EXAMPLE CALCULATION IRRIGATION FLOW RATES (0.06 ppm Cu)					
Water Flow Rate gpm	Water Flow Rate cfs	Dosage Rate ppm Metallic Cu	EarthTec® fl oz/min	Feeder Pump Setting EarthTec® mL/min	
3,000	400	0.06	0.4	11.3	
6,000	800	0.06	0.8	22.6	
9,000	1,200	0.06	1.1	34.0	
12,000	1,600	0.06	1.5	45.3	

IRRIGATION FLOW RATES (1.0 ppm Cu)					
Water Flow Rate gpm	Water Flow Rate cfs	Dosage Rate ppm Metallic Cu	EarthTec® fl oz/min	Feeder Pump Setting EarthTec® mL/min	
3,000	400	1.0	6.4	188.7	
6,000	800	1.0	12.8	377.5	
9,000	1,200	1.0	19.1	566.2	
12,000	1,600	1.0	25.5	755.0	

**BACTERIAL ODOR CONTROL**  
**To Control Bacterial Odor in Feedlot Run-Off Lagoons, Animal Waste or Confinement Pits, and Organic Sludge Pits:** Apply by pouring product directly from the container into the pit or lagoon. Several application points speed up dispersal. Use 1 gallon of full strength EarthTec® in 60,000 gallons (8,000 cubic feet) of sewage. This will yield a rate of 1.0 ppm metallic copper. Bacteria and odors should be noticeably reduced in 1 to 2 weeks. Repeat application when odor reoccurs. Minimum re-treatment interval is 14 days.

**Feedlot Run-Off Lagoons:** Add a portion of the required dosage of EarthTec® at several locations around the lagoon to speed dispersal of the product. A minimum of 2 applications per year (spring and fall) is recommended. Additional applications may be required as needed when the lagoon is pumped.

**Animal Waste or Confinement Pits:** If pits are located under the confinement buildings, add EarthTec® directly to these pits. If the pits are outside, add product to the transfer line to the pit. **KC**

**Job Name: EarthTec, 1 gallon • Kiliper Art #10774 • Date: 4/9/2013 • Customer: Earth Science Labs**

SPOT COLORS ARE NOT FOR COLOR MATCH. PLEASE REFER TO YOUR PANTONE COLOR MATCHING GUIDE.



Size: 5 3/4 x 9 11/16 x .002  
2 Colors on Clear

- Job is Okay as is.
- Make changes indicated and proceed to finals.
- Need to see job again with changes made before finalization.

Company \_\_\_\_\_ Date \_\_\_\_\_

Signature \_\_\_\_\_



**IMPORTANT - DOUBLE CHECK THIS ARTWORK. ERRORS MAY OCCUR REGARDLESS OF OUR INSPECTION. WE CANNOT BE RESPONSIBLE FOR ERRORS IN PLATED OR MISPRINTED PRODUCTS CAUSED BY YOUR FAILURE TO PROPERLY PROOF THIS ARTWORK. WE WILL NOT PROCEED WITH THIS JOB UNTIL YOU CHECK THE APPROPRIATE BOX, SIGN ABOVE AND RETURN. THANK YOU!**

Please forward signed proof to Kiliper Corporation at PO Box 312, 118 Alexander Avenue, Ames, IA 50010  
Phone: 515-233-2268 • Fax: 515-233-2297 • email: pharms@kilipercorp.com or tkiliper@kilipercorp.com

**NOTES:**  
Revised proof 4/9/13 for changes.

All new plates needed for the changes at a cost of 2 plates at \$475.00 each. Total plate cost will be \$950.00.

Approval needed to proceed.