AgriTec®

ALGAECIDE/ BACTERICIDE*

For Impounded Waters, Lakes, Ponds, Lagoons, Wastewater Lagoons, Reservoirs, Livestock Watering Systems,
For Irrigation Conveyance Systems, Irrigation Reservoirs, Irrigation Canals, Ditches and Chemigation Systems.
For Aquacultural Ponds
For Feedlot Run-Off Lagoons, Animal Waste or Confinement Pits and Organic Sludge Pits
Algaecide/Tadpole Shrimp for Rice Fields
Bactericide* - Nonpublic Health Bacteria

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 9.91 LB. PER GALLON - 1.188 kg/L
AND CONTAINS 0.493 LBS ELEMENTAL COPPER PER GALLON.

Manufactured by:
Earth Science Laboratories, Inc.
903 N. 47th Street, Suite 105
Rogers, AR 72756
Phone: (800) 257-9283

EPA REGISTRATION NO. 64962-1
EPA ESTABLISHMENT NO. 64962-NE-001
NET CONTENTS:
TWO AND ONE-HALF (2.5) U.S. GALLONS
THIRTY (30) U.S. GALLONS
FIFTY-FIVE (55) U.S. GALLONS
TWO-HUNDRED SEVENTY-FIVE (275) U.S. GALLONS
TANKER TRUCK

NSF
Certified to NSF/ANSI/CAN 60

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 OR BACK 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 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 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 (background + applied copper).

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.

AGRICULTURAL USE REQUIREMENTS APPLICABLE TO USE ON RICE FIELDS

Use this product only in accordance with its labeling and the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, and nurseries, and mixers, loaders, applicators, and other handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label about personal protective equipment (PPE), restricted re-entry interval, and notification to workers. Do not enter or allow worker entry into treated areas during the restricted entry interval of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as soil or water. Wear coveralls, protective eyewear, chemical resistant gloves (i.e. gloves made of any waterproof material) and shoes plus socks.

USE INFORMATION

AgriTec 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.

AgriTec is used to control algae and to suppress nonpublic health bacteria in irrigation conveyance systems, irrigation reservoirs, irrigation canals, ditches and chemigation systems.

AgriTec is used to control algae and to suppress nonpublic health bacteria and bacteria that cause odor problems in aquacultural ponds.

AgriTec 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.

AgriTec is used to control algae and tadpole shrimp in rice fields.

Before treating bodies of water, consult NPDES permitting authorities. **Do not exceed a free metallic copper concentration (background + applied cooper) in treated water of 1.0 ppm (mg/L)**, equivalent to 16.7 mg/L of AgriTec.

Always read the label <u>on the product</u> for current and accurate information.

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. AgriTec is soluble and will quickly disperse. AgriTec application for 3 acres or less may be poured directly into ponds, small lakes and reservoirs. AgriTec 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 AgriTec by dragging a feeder hose behind a boat across the body of water or dispensing via conventional spray equipment mounted to a boat, helicopter or airplane. AgriTec will quickly diffuse throughout the water body in several hours; broad distribution of the product will speed dispersal and provide quicker control of algae. AgriTec may be applied to irrigation systems 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 ⅓ of the total water area, treat in sections. Treat ½ 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 (background + applied).

For example, if you wish to achieve 1.0 ppm of metallic copper, 1 gallon of AgriTec 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 AgriTec 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 AgriTec and Water table below). Use volumetric measurement devices that are calibrated in accordance with manufacturer specifications.

Gallons of AgriTec and Water		
Gallons AgriTec	Gallons Water	Metallic Copper (ppm)
0.1 (0.4 quarts per 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 thwe 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 and aerial spraying on rice fields.

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: For fish-bearing lakes, ponds, drinking water reservoirs, irrigation canals and other listed applications, it is recommended to apply at the rate of 1 quart of AgriTec per 250,000 gallons of water, or 1 gallon of AgriTec 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. Increase as necessary to achieve control but do not exceed a resulting copper concentration of 1.0 mg/L of metallic copper (background + applied copper) in the treated water.

If algae are present, treat at the rate of 3 quarts of AgriTec per 250,000 gallons of water, or 3 gallons of AgriTec 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 AgriTec per 15,000 gallons of water, or 1 gallon of AgriTec per 60,000 gallons of water. This will yield a rate of 1.0 ppm metallic copper. Do not exceed a resulting concentration of 1.0 mg/L of metallic copper (background + applied copper) in the treated water.

Do not exceed 1 gallon of AgriTec per 60,000 gallons of water (1.0 ppm metallic copper background + applied) under any circumstances for water destined for use as drinking water. AgriTec may be poured into the water manually after calculating the volume of water to be treated and measuring the quantity AgriTec 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 AgriTec 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 and Tadpole Shrimp in Rice Fields: Apply any time the tadpole shrimp appears from planting time until the seedlings are well rooted and have emerged through the water or at the first sign of algae growth on the surface of the field. Applications are most effective when made prior to algae leaving the soil surface and rising to the water surface and prior to appearance of the tadpole shrimp. Factors such as water depth, temperature, pH and the amount of algae can effect the amount of AgriTec needed to control algae and tadpole shrimp. If the depth of the water is 8 inches, apply 9 gallons of AgriTec per acre. If the depth of the water is 4 inches, apply 4½ gallons of AgriTec per acre. AgriTec can be metered into the rice field as water is being applied or by aerial application. Do not exceed a copper concentration in water of 2.5 ppm of metallic copper concentration (9 gallons of AgriTec per acre with 8 inch depth of water or 13½ gallons of AgriTec per acre foot of water). If tadpole shrimp are not present, do not exceed 1.0 ppm metallic copper.

To Control Algae or Nonpublic Health Bacteria and Bacteria That Cause Odor Problems in Open Channel Irrigation Conveyance Systems and Chemigation Systems, Ditches and Canals: To prevent algae growth using a static application method, apply 1 gallon of AgriTec 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 AgriTec 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 AgriTec 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. AgriTec 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 AgriTec per 60,000 gallons of water to 1 gallon AgriTec per 1,000,000 gallons of water. This will yield a rate of 1.0 ppm to 0.06 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 AgriTec 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

CHEMIGATION AND IRRIGATION FLOW RATES (0.06 PPM CU)				
Water Flow Rate gpm	Water Flow Rate cfm	Dosage Rate ppm Metallic Cu	AgriTec fl/oz min	Feeder Pump Setting AgriTec 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

CHEMIGATION AND IRRIGATION FLOW RATES (1.0 PPM CU)				
Water Flow Rate gpm	Water Flow Rate cfm	Dosage Rate ppm Metallic Cu	AgriTec fl/oz min	Feeder Pump Setting AgriTec 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

To Control Algae and Nonpublic Health Bacteria and Bacteria That Cause Odor Problems in Aquacultural Ponds: Apply at the rate of ¼ to ½ gallon of AgriTec per acre foot (326,000 gallons) of water to yield concentrations ranging from 0.05 ppm to .09 ppm metallic copper, respectively. Metallic copper concentration is directly proportional to amount of AgriTec added per acre foot. A maintenance dose of 4 to 8 fluid ounces per acre foot may be used every 14 days. The rate is dependent on water temperature, fish density and the degree of suppression targeted.

Computation for Aquacultural Ponds of Amount of AgriTec Applied One Acre Foot (12 Inches Deep)		
Gallons AgriTec	Gallons Water	Copper (ppm)
0.25	326,000	0.05
0.5	326,000	0.09

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 AgriTec 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 AgriTec 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 AgriTec directly to these pits. If the pits are outside, add product to the transfer line to the pit.

AERIAL SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground and aerial) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Droplet Size: Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Wind Speed: Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition (approximately 3 to 10 mph) and there are no sensitive areas within 250 feet downwind.

Temperature Inversions: If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or unstable atmospheric conditions.

Other State and Local Requirements: Applicators must follow all state and local pesticide drift requirements regarding application of copper compounds. Where states have more stringent regulations, they must be observed.

Equipment: All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

For Aerial Applications: The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above water surface unless a greater height is required for aircraft safety.

When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for the displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

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 AgriTec. Always rinse and clean equipment thoroughly each night with plenty of fresh, clean water.

PESTICIDE 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. AgriTec will freeze. Always store AgriTec above 32 degrees F (Do Not Freeze). Freezing may cause product separation.

Always keep container closed. Keep away from galvanized pipe, and any nylon storage or handling equipment.

DISPOSAL

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess AgriTec 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.

Always read the label on the product for current and accurate information.

CONTAINER HANDLING

Containers with capacities less than 5 gallons: 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 ¼ 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.

Containers with capacities greater than 5 gallons: 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. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least 1 complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. 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.

Containers too large to shake: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure 2 more times. Offer for recycling if available 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.

Tanker trucks: Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

IMPORTANT
READ BEFORE USING
LIMITED WARRANTY AND LIMITATION OF REMEDIES

Read the entire Directions for Use, Limited Warranty and Limitation of 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.

Always read the label <u>on the product</u>
for current and accurate information.