



**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**Office of Pesticide Programs**  
**Registration Division (7504P)**  
**Ariel Rios Building**  
**1200 Pennsylvania Ave., NW**  
**Washington, D.C. 20460**

EPA Reg.  
 Number:  
 63269-1

Date of Issuance:  
 JUN 12 2013

**NOTICE OF PESTICIDE:**

Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance: **Unconditional**

Name of Pesticide Product:  
**TMB 471C**

**Name and Address of Registrant (include ZIP Code):**

Jeff Jones  
 Agent for Thorton, Musso, & Bellemin, Inc.  
 c/o Delta-Analytical Corporation  
 12510 Prosperity Drive, Suite 160  
 Silver Spring, MD 20904

**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.

*On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act. 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.*

This product is unconditionally registered in accordance with FIFRA sec. 3(c)(5), provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA Section 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. You must submit the following data listed below, before the due date of 05/01/2014:

- A. Guideline 830.6317 Storage Stability
- B. Guideline 830.6320 Corrosion Characteristics

3. You must submit two copies of a final printed label within 30 days from the date of this notice (along with a copy of this notice) which makes the following changes:

- A. Revise the EPA registration number to be: 63269-1.

(continued)

Signature of Approving Official:

Tony Kish  
 Product Manager, Team 22  
 Fungicide Branch  
 Registration Division (7504P)

Date:

JUN 12 2013

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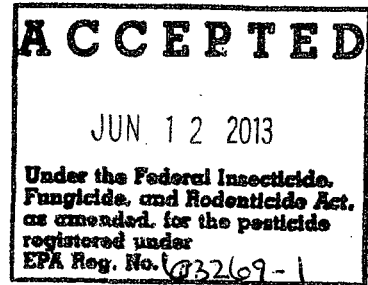
If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA Section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

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

Sincerely,

Tony Kish  
Product Manager 22  
Fungicides Branch  
Registration Division (7504P)

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# TMB 471C

**Active Ingredient:**  
**Copper Sulfate pentahydrate\*** ..... **25.0%**  
**Other Ingredients:** ..... **75.0%**  
**Total:** ..... **100.0%**

**COPPER AS METALLIC NOT LESS THAN 6.30%\***  
 Density: 9.85 pounds per gallon      CAS# 7758-99-8

**KEEP OUT OF REACH CHILDREN  
 DANGER**

<b>FIRST AID</b>	
<b><i>If in eyes:</i></b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b><i>If on skin or clothing:</i></b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b><i>If swallowed:</i></b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b><i>If inhaled:</i></b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center for further treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information, call the National Pesticides Information Center at 1-800-858-7378, 7:30 AM to 3:30 PM, Pacific time (PT), Mon. – Fri. During other times, call the poison control center at 1-800-222-1222.</p>	
<p><b>Note to physician:</b> Probable mucosal damage may contraindicate the use of gastric lavage.</p>	

See Side Panel for Additional Precautionary Statements and Directions for Use.

Manufactured by:  
**Thornton, Musso & Bellemin, Inc.**  
**PO Box 181**  
**Zachary, LA 70791**

EPA Reg. No. 63269-  
 EPA Est. No. 63269-LA-001

Environmentally Hazardous Substances  
 Liquid, n.o.s. (Cupric sulfate) 9, UN 3082, P.G. III

**Net Weight:**

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER. CORROSIVE.** Causes irreversible eye damage. Do not get in eyes, on skin, or on clothing. Harmful if swallowed. Harmful if absorbed through skin, swallowed or inhaled. Avoid breathing vapor or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)** Mixers, loaders, applicators and other handlers must wear coveralls over long-sleeved shirt and long pants, goggles or face shield, chemical-resistant footwear plus socks, chemical-resistant gloves made of any waterproof material, chemical-resistant apron for mixing, loading, and cleaning equipment and chemical-resistant headgear for overhead exposure.

### 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. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Remove and wash contaminated clothing before reuse.

### ENVIRONMENTAL HAZARDS

This pesticide 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 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 outwards 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 ( $\leq 6.5$ ), 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.

### 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 requirements specific to your State, consult the agency responsible for pesticide regulations.

**GENERAL INSTRUCTIONS FOR USE**

Water hardness, temperature of the water, the type and amount of vegetation to be controlled, and the amount of water flow are to be considered in using TMB 471C to control algae. Begin treatment soon after plant growth has started. If treatment is delayed until a large amount of algae is present, larger quantities of TMB 471C will be required. Algae are difficult to control with TMB 471C when water temperatures are low or water is hard. Larger quantities of TMB 471C will be required to kill and control algae in water that is flowing rather than in a body of stagnant water. If possible, curtail the flow of water before treatment and hold dormant for approximately three days after treatment or until the algae have begun to die. If there is some doubt about the concentration to apply, it is generally best to start with a lower concentration and to increase this concentration until the algae is killed.

Treatment of algae can result in oxygen loss from decomposition of dead algae. This loss can cause fish suffocation. Therefore, to minimize this hazard, treat no more than 1/2 of the water area in a single operation. The minimum retreatment interval is 14 days. Begin treatments along the shore and proceed outward in bands to allow fish to move into untreated water. NOTE: For applications to 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 any waters.

**CALCULATIONS FOR THE AMOUNT OF WATER IMPOUNDED AND FOR THE AMOUNT OF TMB 471C TO BE USED:** Calculate water volume as follows: (1) Obtain surface area by measuring of regular shaped ponds or mapping of irregular ponds or by reference to previously recorded engineering data or maps. (2) Calculate average depth by sounding in a regular pattern and taking the mean of these readings or by reference to previously obtained data. (3) Multiply surface area in feet by average depth in feet to obtain cubic feet of water volume. (4) Multiply surface area in acres by average depth in feet to obtain total acre-feet of water volume.

**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 pounds of water.

**CALCULATIONS OF ACTIVE INGREDIENT TO BE ADDED:** To calculate the amount of TMB 471C needed to achieve the recommended concentration, multiply the weight of water by the recommended concentration of TMB 471C. Since recommended concentrations are normally given in parts per million (ppm), it will first be necessary to convert the value in parts per million to a decimal equivalent. For example, 8 ppm is the same as 0.000008 when used in this calculation. Therefore, to calculate the amount of TMB 471C to treat 1 acre-foot of water with 8 ppm TMB 471C, the calculation would be as follows:

$$0.000008 \times 2,720,000 = 21.75 \text{ pounds} \times \frac{1 \text{ gal TMB 471C}}{9.85} = 2.2 \text{ gal TMB 471C}$$

### SPECIFIC INSTRUCTIONS

Dosages to control algae in impounded waters, ponds, and reservoirs should be calculated per million gallons as follows:

1 MMg x 8.344 pounds per gallon x 8 ppm = 66.75 pounds TMB 471C per MMg raw water (maximum use) x 1 gal per 9.85 pounds = 6.75 gallons TMB 471C per MMg raw water (recommended use). This is the equivalent of 8 parts per million (ppm) TMB 471C which delivers ½ ppm active copper.

For flowing systems such as raw water intake, use same dosage rate so that the maximum usage remains 6.75 gallons TMB 471C per day per MMG per day raw water. Successful algae treatment can be accomplished at much lower dosages. Treatment dosages can be as low as 1/20 the maximum or 0.68 gallon per MMg water.

To control algae in impounded waters, lakes, ponds and reservoirs: The most satisfactory and simplest method is pump injection at the intake pipes located between irrigation canal and reservoir. Meter and regulate bulk TMB 471C tank to coincide with the start of the irrigation pump. Dosage not to exceed 8 ppm TMB 471C, which delivers ½ pm active copper.

### TMB 471C REQUIRED FOR TREATMENT OF DIFFERENT GENERA OF ALGAE

The genera of algae listed below are commonly found in waters of the United States. Use the lower recommended rate in soft waters (less than 50 ppm, methyl orange alkalinity) and the higher concentration in hard water (above 50 ppm alkalinity). Always consult State Fish and Game Agency before applying this product to municipal waters.

<b>Organism</b>	<b>1-2 ppm TMB 471C</b> 0.28-0.55 gals/acre ft	<b>2-4 ppm TMB 471C</b> 0.55-1.10 gals/acre ft	<b>4-6 ppm TMB 471C</b> 1.10-1.66 gals/acre ft	<b>6-8 ppm TMB 471C</b> 1.66-2.21 gals/acre ft
Cyanophyceae (Blue-green)	Anabaena Anacystis Aphanizomenon Gloeotrichia Gomphosphaeria Polycystis Rivularia	Cylindrospermum Oscillatoris Plectonema	Nostoc Phomidium	Calothrix Symploca
Chlorophyceae (Green)	Closterium Hydrodictyon Spirogyra Ulothrix	Botryococcus Cladophora Coelastrum Drapamaldia Enteromorpha Gloeocystis Microspora Tribonema Zygnema	Chlorella Crucigenia Desmidium Golenkinia Oocystis Palmella Pithophora Staurastrum Tetraedron	Ankistrodesmus Chara Nitella Scenedesmus
Diatomaceae (Diatoms)	Asterionella Fragilaria Melosira Navicula	Gomphonema Nitzschia Stephanodiscus Synedra Tabellaria	Achnanthes Cymbella Nudum	
Protozoa (Flagellates)	Dinobryon Synura Uroglena Volvox	Ceratium Cryptomonas Euglena Glenodinium Mallomonas	Chlamydomonas Hawmatococcus Peridinium	Eudorina Pandorina

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep pesticide in original container. Do not put concentrate or dilutions of concentrate on food or drink containers.

**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 HANDLING:**

*[Use the following for Nonrefillable containers:]*

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

*[Rinsing directions for containers too large to shake (> 5 gal. or 50 lbs.):]* Triple rinse as follows: Empty 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 one 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.

*[OR: Alternate rinsing directions for containers small enough to shake (5 gal. or less):]* 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 two more times. Then offer for recycling, if available; or reconditioning; if appropriate; or puncture and dispose of in a sanitary landfill.

*[OR: Use the following for Refillable containers:]*

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 ten percent 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 two more times. Reseal and offer for reconditioning or recycling. Consult federal, state or local disposal authorities for approved alternative methods.

*[Bulk Shipment Transport Vehicle labeling: In accordance with 40 CFR 156.140 (e) and 156.144 (g) "Exemption for transport vehicles" transport vehicles are exempt from the requirements to provide refillable or nonrefillable container instructions and residue removal instructions.]*

NOTICE: THORNTON, MUSSO & BELLEMIN, INC. warrants that this product in its unopened package conforms to the chemical description on the label. To the extent consistent with applicable law, THERE ARE NO OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. To the extent consistent with applicable law, this warranty does not extend to the handling or use of this product contrary to label instructions or under abnormal conditions or under conditions not reasonably foreseeable to seller and buyer assumes all risk of any such use.

[Lot Number: ]

*[Note: Italics in brackets indicate instructions, not part of labeling.]*