

formula  
**F**

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# ALGAE CONTROL

E.P.A. Reg. No. 27588-2 ▪ E.P.A. Est. No. 27588-CA-01

**FOR USE IN: FIRE PONDS, RESERVOIRS,  
ORNAMENTAL LAKES AND PONDS**

**ACTIVE INGREDIENT:**

Copper Sulfate Pentahydrate\* ..... 10.9%

**INERT INGREDIENTS:** .....89.1%

**TOTAL:** .....100.0%

\*Metallic Copper Equivalent: 2.7%

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION:** See other cautions on side panel

**NET CONTENTS:** □ 1 QUART



Diversified Waterscapes, Inc.  
LAGUNA NIGUEL, CA 92677

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Formula F-30 may cause skin sensitization in certain individuals. Do not get on skin, eyes or clothing. In case of contact, wash thoroughly and get medical attention. May be harmful if swallowed. If swallowed, call a doctor.

**FIRST AID**  
(Have the product container or label with you when calling a poison control center or doctor, or going for treatment.)

**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 by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

**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(s).
- Call a poison control center or doctor for treatment advice.

**NOTE TO PHYSICIAN:**  
Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

**ENVIRONMENTAL HAZARDS:**  
This pesticide is toxic to fish. Direct application of copper sulfate to water may cause a significant reduction in populations of aquatic invertebrates, plants and fish.

**FISH PRECAUTIONS:**  
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 1/3 to 1/2 of the water area in a single operation and wait at least 10 – 14 days between treatments. Begin treatment along the shore and proceed outward in bands to allow the fish time to move into untreated areas.

**NOTE:**  
Trout, koi and other species of fish may be killed at application rates recommended on this label. However, fish toxicity generally decreases when the hardness of the water increases. Consult your state fish and game agency before applying this product to public waters.

**GENERAL INFORMATION**  
Formula F-30, when properly applied, will control a broad spectrum of algae. Especially effective results have been obtained against spirogyra, cladophora, vaucheria, chara, microcystis, ulathrix and oscillatoria.

If treated water is to be used as a source of water for human consumption, the metallic copper residue must not exceed 1 part per million (ppm), or 4 ppm of copper sulfate pentahydrate.

**DIRECTIONS FOR USE**  
It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**SURFACE SPRAY/INJECTION ALGAECIDE APPLICATION**  
For effective control, proper chemical concentration should be maintained for a minimum of three hours contact time. The application rates in the chart are based on static or minimal flow situation. Where significant dilution or loss of water from unregulated inflows or outflows occur (raceways) within a three hour period, F-30 may have to be metered in.

- Identify the algae growth present as one of the following types; Planktonic (suspended), Filamentous (mat-forming), or Chara/Nitella.
- Determine the surface acreage (1 acre = 43,560 sq. ft.) and average depth of infected area.
- Refer to the chart to determine gallons of Formula F-30 to apply per surface acre.

**HOW TO APPLY FORMULA F-30**  
Formula F-30 may be diluted with 5 parts water to 1 part formula F-30 and coarse sprayed from shore. Another effective method is to evenly distribute the product from the back of a moving boat. Generally 1 gallon of Formula F-30 will treat about 326,000 gallons (1 acre foot) of water to 0.4 ppm copper sulfate pentahydrate or 0.1 ppm metallic copper equivalent. Apply Formula F-30 when algae growth first appears and the temperature of the water to be treated exceeds 60°F.

**HOW TO ESTIMATE GALLONS OF WATER / ACRE FEET**  
Measure Length (L), Width (W) and average Depth (D) in feet. Rectangular or Square shaped bodies of water: **L x W x D x 7.5 = approximate gallons.**  
Circular or Elliptical bodies of water: **L x W x D x 5.9 = approximate gallons.**  
Total gallons divided by 325,851.6 (gallons per acre feet) = Acre Feet

**DOSAGE TABLE**

GAL. Formula Per Acre-foot Water	=	PPM Copper Sulfate Pentahydrate
0.5 gal.	=	.20
1.0 gal.	=	.40
2.0 gal.	=	.81

During periods of heavy algae growth, repeat application may be needed. If algae is still present after two weeks repeat the application as directed.

**DRIP SYSTEM APPLICATION**  
FOR USE IN POTABLE WATER AND IRRIGATION CONVEYANCE SYSTEMS

- Formula F-30 should be applied as soon as algae or hydrilla begins to interfere noticeably with normal delivery of water (clogging of lateral headgates, suction screens, weed screens, and siphon tubes.) Delaying treatment could perpetuate a problem causing massing and compacting of plants. Heavy infestations and low flow may cause poor chemical distribution resulting in unsatisfactory control. Under these conditions, increasing water flow rate during application, may be necessary.
- Prior to treatment it is important to accurately determine water flow rates in the absence of weirs, orifices, or similar devices which give accurate water flow measurements, volume of flow may be estimated by the following formula.  
**Average Width (W) x Average Depth (D) x Velocity (V)\* (feet/second) x 0.9 = Cubic Feet per Second (C.F.S.)**  
Example: 26 x 5 x 1.7 x 0.9 = 198.9 cubic feet per second.

(Velocity is the time it takes a floating object to travel a given distance. Dividing the distance traveled (feet by the time (seconds) will yield velocity (feet/second). This measurement should be repeated at least three times at the intended application site and then averaged.

- After accurately determining the water flow rate in C.F.S or gallons/minute, find the corresponding Formula F-30 on the chart below:

WATER FLOW RATE		FORMULA F-30 DRIP RATE*		
C.F.S	Gal./Min.	Qts./Hr.	ML/Min.	Fl. Oz./Min.
1	450	1	16	0.5
2	900	2	32	1.1
3	1350	3	48	1.6
4	1800	4	64	2.1

- Calculate the amount of Formula F-30 needed to maintain the drip rate for a period of 3 hours by multiplying Qts./Hr. x 3: ml/Min x 180: or Fl. Oz./Min. x 180. Dosage will maintain 1.0 ppm copper concentration in the treated water for the 3 hour period. Introduction of the chemical should be made in the channel at weirs or other turbulence creating structure to promote the dispersion of F-30.
- Pour the require amount of Formula F-30 into a drum equipped with a brass needle valve and constructed to maintain a constant drip rate. Readjust accordingly if flow rate changes during the 3 hour period.
- Distance of control obtained down the waterway will vary depending upon density of vegetation growth. Periodic maintenance treatments may be required to maintain seasonal control.

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

**STORAGE:**  
Keep container closed when not in use. Open dumping is prohibited.

**PESTICIDE DISPOSAL:**  
Pesticide spray mixture or rinsate that cannot be used or chemically reprocessed should be disposed of according to procedures approved by Federal, State, or Local Disposal Authorities.

**CONTAINER DISPOSAL:**  
Reseal container and offer for recondition, or triple rinse (or equivalent) and offer for recycling, reconditioning, or disposal in approved landfill. Consult Federal, State, or Local Disposal Authorities for approved alternative procedures.

**PACKAGING** – Formula F-30 is packaged in 4x1 cases containing 4 – 1 gallon poly-jugs, 5 gallon poly-cans, 30 gallon poly-drums and 55 gallon poly-drums. The weight per gallon is approximately 10.5 lbs.

**NOTICE** – Neither the manufacturer nor the seller makes any warranty expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use of this material when such use is contrary to label instructions. Read and follow the label directions carefully.