

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION
Harmful if swallowed, absorbed through the skin, or inhaled. Avoid contact with skin, eyes, or clothing. Avoid inhalation of dust. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash thoroughly before reuse.

STATEMENT OF PRACTICAL TREATMENT
If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.
If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

ENVIRONMENTAL HAZARDS
This pesticide is extremely toxic to fish. Fish kills are expected at recommended rates. Consult your State Fish and Game Agency before applying this product to public waters to determine if a permit is needed for such an application. Do not contaminate untreated water when disposing of equipment washwaters.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.
STORAGE: Store only in original container, in a dry place inaccessible to children and pets. If spilled, sweep up and dispose of as below.
PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
CONTAINER DISPOSAL: Completely empty bag into application equipment. Then dispose of bag in a sanitary landfill or by incineration, or if allowed by State and local authorities by burning. If burned, stay out of smoke.

DIRECTIONS FOR USE

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

USE RESTRICTIONS:

Use against fish in lakes, ponds, and streams (immediately above lakes and ponds). Since such factors as pH, temperature, depth, and turbidity will change effectiveness, use this product only at locations, rates, and times authorized and approved by appropriate state and Federal fish and wildlife agencies. Rates must be within the range specified in the labeling.

Properly dispose of dead fish and unused product. Do not use dead fish as food or feed.

Do not use water treated with rotenone to irrigate crops or release within 1/2 mile upstream of a potable water or irrigation water intake in a standing body of water such as a lake, pond, or reservoir.

Note to User: Adjust pounds of Rotenone according to the actual Rotenone Assay as noted under the Ingredient Statement on this label. For example, if the required amount of 5% rotenone is 21 pounds, and the Rotenone Assay is 7%, use 5/7 of 21 pounds or 15 pounds of this product to yield the proper amount of active rotenone.

APPLICATION DIRECTIONS:

Treatment of Lakes and Ponds

- Application Rates and Concentrations of Rotenone**
The actual application rates and concentrations of rotenone needed to control fish will vary widely, depending on the type of use (e.g., selective treatment, normal pond treatment, etc.) and the factors listed above. The table below is a general guide for the proper rates and concentrations.
- Total Amount of Product Needed for Treatment**
To determine the total number of pounds needed for treatment, divide the number of acre-feet covered by one pound for a specific type of use (e.g., selective treatment, etc.), as indicated in the table below, into the number of acre-feet in the body of water.

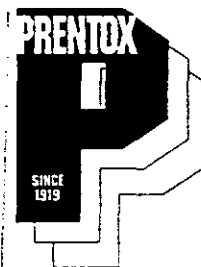
General Guide to the Application Rates and Concentrations of Rotenone Needed to Control Fish in Lakes and Ponds¹

Type of Use	No. of Acre-Feet Covered by One Pound	Parts Per Million Active Rotenone	5% Product
Selective Treatment	3.7 to 2.8	0.005-0.007	0.10-13
Normal Pond Use	0.74 to 0.37	0.025-0.050	0.5-1.0
Remove Bullheads or Carp	.37 to .185	0.050-0.100	1.0-2.0
Remove Bullheads or Carp in Rich Organic Ponds	.185 to 0.093	0.100-0.200	2.0-4.0
Pre-impoundment Treatment above Dam	.123 to 0.074	0.150-0.250	3.0-5.0

¹Adapted from Kinney, Edward. 1965. Rotenone in Fish Pond Management. USDI, Washington, D.C. Leaflet FL-576.

**RESTRICTED USE PESTICIDE
DUE TO AQUATIC TOXICITY**

For retail sale to, and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.



**ROTENONE
FISH
TOXICANT
POWDER**

ACTIVE INGREDIENTS:

Rotenone-Minimum Guaranteed 5.0%w/w

Other Cube Resin 10.0%

INERT INGREDIENTS 85.0%

100.0%w/w

ROTENONE ASSAY _____ %ROTENONE

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Left Panel for additional
precautionary statements.

E.P.A. REG. 655-691

E.P.A. EST. NO. _____

LOT # _____

NET WEIGHT 50 POUNDS

ACCEPTED
JAN 22 1992

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 655-691

Manufactured by
**PRENTISS
INCORPORATED**

Plant: Kaolin Rd., Sandersville, GA 31082
Office: C.B. 2000, Floral Park, NY 11001

Computation of acre-feet for lake or pond: An acre-foot is a unit of water volume having a surface area of one acre and a depth of one foot. Make a series of transects across the surface, taking depths with a measured pole or weighted line. Add the measurements and divide by the number made to determine the average depth. To compute total acre-feet, multiply this average depth by the number of surface acres, which can be determined from an aerial photograph or plat drawn to scale.

3. **Pre-Mixing and Method of Application**
Pre-mix one pound Rotenone with 3 to 10 gallons of water. Uniformly apply over water surface or bubble through underwater lines.

Alternatively place undiluted powder in burlap sack and trail behind boat. When treating deep water (20 to 25 feet) weight bag and tow at desired depth.

4. **Removal of Taste and Odor**
Rotenone treated waters do not retain a detectable taste or odor for more than a few days to a maximum of one month. Taste and odor can be removed immediately by treatment with activated charcoal at a rate of 30 ppm. for each 1 ppm. Rotenone remaining (Note: As Rotenone detoxifies, less charcoal is required).

5. **Restocking**
Waters treated with this product detoxify within 2 to 4 weeks after treatment, depending on pH, temperature, water hardness, and depth. To determine if detoxification has occurred, place live boxes containing samples of fish to be stocked in the treated waters. More rapid detoxification can be accomplished by adding Potassium Permanganate or chlorine at a 1:1 ratio with the concentration of rotenone applied, plus sufficient additional compound to satisfy the chemical oxidation demand caused by organic matter that may be present in the treated water.

Treatment of Streams Immediately Above Lakes and Ponds

The purpose of treating streams immediately above lakes and ponds is to improve the effectiveness of lake and pond treatments and not to control fish in streams per se. The term "immediately" means the first available site above the lake or pond where treatment is practical.

In order to treat a stream immediately above a lake or pond, you must select a concentration of active rotenone, compute the flow rate of a stream, calculate the application rate, select an exposure time, estimate the amount of product needed, and follow the method of application.

- Concentration of Active Rotenone**
Select the "Concentration of Active Rotenone" based on the type of use from those on the table. For example, if you select "Normal Pond Use" you could select a concentration of "0.025 Parts per Million".
- Computation of Flow Rate for Stream:**
Select a cross section of the stream where the banks and bottom are relatively smooth and free of obstacles. Divide the surface width into 3 equal sections and determine the water depth and surface velocity at the center of each section. In slowly moving streams, determine the velocity by dropping a float attached to 5 feet of loose, monofilament fishing line. Measure the time required for the float to move 5 feet. For fast-moving streams, use a longer distance. Take at least three readings at each point. To calculate the flow rate from the information obtained above, use the following formula:

$$F = \frac{Ws \times D \times L \times C}{T}$$

where F = flow rate (cu. ft./sec.), Ws = surface width (ft.), D = mean depth (ft.), L = mean distance traveled by float (ft.), C = constant (0.8 for rough bottoms and 0.9 for smooth bottoms), and T = mean time for float (sec.).

For example, after using the above formula, you might have computed the stream's flow rate to be "10 cu ft per sec".

- Calculation of Application Rate**
In order to calculate the application rate (expressed as "pound per sec"), you convert the rate in the table (expressed as "pound per acre-foot"), to "pound per cu feet" and multiply by the flow rate (expressed as cu ft per sec"). Depending on the size of the stream and the type of equipment, the rate could be expressed in other units, such as "ounces per hr".

The application rate for the stream above is calculated as follows:

$$R_s = R_p \times C \times F$$

where R_s = Application Rate for Stream (lb/sec), R_p = Application Rate for Pond (lb/acre feet), C = 1 acre foot/43560 cu ft, and F = Flow Rate (cu ft/sec).

In the example, the Application Rate for Stream would be:

$$R_s = 1 \text{ lb/0.74 acre-foot} \times 1 \text{ acre-foot/43560 cu ft} \times 10 \text{ cu ft/sec}$$

$$R_s = .00031 \text{ lb/sec or } 17.9 \text{ oz/hr.}$$

- Exposure Time**
The "Exposure Time" would be the period of time (expressed in hours or seconds) during which target fish should not enter the lake or pond under treatment. In the example, this period of time could be 4 hours.

- Amount of Product**
Calculate the "Amount of Product" for a stream by multiplying the "Application Rate for Stream" by the "Exposure Time". In the example, the "Amount of Product" would be 71.6 oz (17.9 oz/hr x 4 hr) or 4.5 lb.

RE-ENTRY STATEMENT

Do not allow swimming in rotenone-treated water until the application has been completed and all pesticide has been thoroughly mixed into the water according to labeling instructions.

PM 04
1439-236

1/22/92
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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

① May be fatal if swallowed. May cause eye injury. Causes skin irritation. Do not get in eyes, on skin, or clothing. Wear protective goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

④ PHYSICAL HAZARDS
FLAMMABLE: KEEP AWAY FROM HEAT AND OPEN FLAME

③ ENVIRONMENTAL HAZARDS
This pesticide is extremely toxic to fish. Do not discharge into lakes, streams, ponds, estuaries, oceans or other public waters unless this product is specifically identified and addressed in NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

DIRECTIONS FOR USE
It is a violation of Federal Law to use this product in a manner inconsistent with the labeling.
This product is intended for formulation into end-use products for acceptable use patterns.

↑ registered
Use Pattern Statement:
Aquatic Non-Crop: Fish

POWDERED CUBE ROOT
6.9% Rotenone

Active Ingredients 20.7%
Rotenone from cube 6.9%
Other Associated Resins 13.8%
Inert Ingredients 79.30%
Total 100.0%

FOR MANUFACTURING USE ONLY

*** WARNING ***
KEEP OUT OF REACH OF CHILDREN

TIFA LTD.
Tifa Square
Millington, New Jersey 07946

EPA Reg. No. 1439-236
EPA Est. No. 1439N.J.01

Net Contents _____

Lot No. _____

(1am)
March 8, 1995
WP:L-CPR236

STORAGE AND DISPOSAL

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

PESTICIDE DISPOSAL: Pesticide wastes are toxic. 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 DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by other procedures approved by State and Local authorities.

② STATEMENT OF PRACTICAL TREATMENT
If swallowed: Do not induce vomiting. Call a physician or Poison Control Center. Drink promptly a large quantity of milk, egg whites, gelatin solution or if these are not available, drink large quantities of water. Avoid alcohol. Get medical attention.
If in eyes: Flush with plenty of water. Get medical attention.
If on skin: Wash with plenty of soap and water. Get medical attention.

IMPORTANT: READ BEFORE PURCHASE OR USE
WARRANTY STATEMENT

Our recommendation for the use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied is made to the fact as to the effects of such or the results to be obtained if not used in accordance with direction or established safe practice. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such or in combination with other materials.

Basic Label
Do not
Stamp
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