

Prentiss Inc.
C.B. 2000 Floral Park
New York, NY 11001

SEP 26 1997

Attention: Mr. Richard Miller

Subject: Powdered Cube Root
EPA Reg. No. 655-691
Your submissions of July 9 and September 9, 1997
Our letter of April 24, 1997.

In our April 24, 1997, letter, we indicated that your Confidential Statement of Formula (CSF) dated January 24, 1992, was not acceptable because the amount of active ingredient on your ingredient statement was not consistent with the CSF. Because you have submitted labels that agree with your CSF, your January 22, 1997, CSF is now acceptable.

However, because the registrant of the product that you repack has submitted additional acute toxicity data, it will be necessary to revise your labeling.

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable provided that you make the following changes and submit one (1) copy to us before you ship your product:

1. Revise beginning of "Restricted Use Pesticide" as:

RESTRICTED USE PESTICIDE

Due to Aquatic, Acute Oral and Inhalation Toxicity

2. On the Front Panel, change "CAUTION" to "DANGER" and add "POISON" and "Skull and Crossbones" in red.
3. Change "STATEMENT OF PRACTICAL TREATMENT" to "FIRST AID" and revise text to read:

IF INHALED, Remove victim to fresh air. If not breathing, give artificial respiration preferably

mouth-to-mouth. Get medical attention.

IF SWALLOWED ... person.

IF IN EYES, Flush with plenty of water. Call a physician if irritation persists.

IF ON SKIN, wash with plenty of soap and water. Get medical attention.

4. Revise "HAZARDS TO HUMANS AND DOMESTIC ANIMALS" as:

DANGER

Fatal if inhaled or swallowed. Harmful if absorbed through the skin. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Do not breathe dust. Use a dust filtering respirator (MSHA/NIOSH approval number prefix TC-21C). Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminate clothing and wash clothing before reuse.

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 bearing the amended labeling constitutes acceptance of these conditions.

A stamped copy of the labeling is enclosed for your records.

Sincerely yours,

DB

Dan Peacock, Biologist
Insecticide-Rodenticide Branch
Registration Division (7504C)

- Enclosures: 1.- Stamped Label
- 2. A-79 Enclosure

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**RESTRICTED USE PESTICIDE
DUE TO AQUATIC TOXICITY**

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

PRENTOX[®] ROTENONE FISH TOXICANT POWDER

ACTIVE INGREDIENTS:

Rotenone- Minimum Guaranteed 7.4 5.0% w/w
Other Cube Associated Resins 11.1 10.0%

INERT INGREDIENTS: 81.5 85.0%
TOTAL: 100.0% w/w

ROTENONE ASSAY _____ % ROTENONE

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

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.

SEE INSIDE LEAFLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS

Manufactured by:

PRENTISS INCORPORATED

E.P.A. REG. NO. 655-691
E.P.A. EST. NO. 655-GA-1

Plant: Kaolin Road, Sandersville, GA 31082
Office: C.B. 2000, Floral Park, NY 11002-2000

**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.

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.

RECEIVED
WITH COMMENTS
in EPA Letter Dated:

SEP 26 1997

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

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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

1. 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.

2. 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 - 1.3 |
| Normal Pond Use | 0.74 to 0.37 | 0.025 - 0.050 | 0.5 - 2.0 |
| Remove Bullheads or Carp | 0.37 to 0.185 | 0.050 - 0.100 | 1.02 - 2.0 |
| Remove Bullheads or Carp in Rich Organic Ponds | 0.185 to 0.093 | 0.100 - 0.200 | 2.0 - 4.0 |
| Pre-impoundment Treatment above Dam | 0.123 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.

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 Method of Application

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

Alternately 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 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.

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1. **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".

2. **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."

3. **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 foot), C = 1 acre foot/43560 cu. ft., and F = Flow Rate (cu. ft./sec).

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

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

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

4. **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.

5. **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.