1439-260

6/10/2002

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: May be fatal if swallowed or inhaled. Do not breathe dust. Wear a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N, R, P, or HE filter. Causes moderate eye irritation. Do not get in eyes, on skin or on clothing. Causes moderate eye irritation. Wear protective goggles, faceshield, or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, or smoking. Remove contaminated clothing and wash before reuse.

FIRST AID	
If Swallowed:	Call poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
If Inhaled:	Move person to fresh air. If person is not breathing, call 911 or an, Ambulance then give artificial respiration, Preferably mouth-to- mouth if possible Call a poison control center.
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.
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.
Hot Line:	1-800-858-7378 Have the product container or label with you When calling a poison control center or doctor, or going for treatment

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.

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 DISPOSAL:

Completely empty bag by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

General Guide to the Application Rates and Concentrations of Rotenone Needed to Control Fish in Lakes, Ponds and Reservoirs

RESTRICTED USE PESTICIDE
DUE TO AQUATIC, ACUTE ORAL, AND ACUTE INHALATION 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.

CHEM-SECT BRAND

CUBE POWDER FISH TOXICANT

ACTIVE INGREDIENTS	
Rotenone*	7.4%
Other Associated Resins	11.1%
INERT INGREDIENTS	81.5%
TOTAL	100.0%

*Nominal content. See Certificate of Analysis for actual rotenone content.

KEEP OUT OF REACH OF CHILDREN

WARNING

See Side Panel for additional precautionary statements.

Tifa Limited
Tifa Square
Millington, New Jersey 07946
United States of America
Telephone: 908-647-4570
Facsimile Nos.: 908-647-2517 [illegible]

ACCEPTED
JUN 10 2002
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide
EPA Reg. No. 1439-260

EPA REG. NO. 1439-260
EPA EST. NO. 1439-NJ-1

Net Contents 55 lbs. Control No._____

USE RESTRICTIONS:

Use against fish in lakes, ponds, reservoirs, and streams (immediately above lakes, ponds, and reservoirs). CHEM SECT CUBE POWDER is registered for use by or under permit from and, after consultation with, State and Federal Fish and Wildlife Agencies.

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.

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

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

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

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 label instructions.

APPLICATION DIRECTIONS:

To Survey Fish Population

This product may be used to survey fish populations in fresh or salt water, provided that there is no intent to control such populations. Before using rotenone in such a manner, determine if applications are subject to other Federal, State and Local laws and regulations or if permits are required.

To Control Fish Populations

Treatment of Lakes, Ponds, and Reservoirs

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) Computation of acre-feet for lake and pond. (An acre-foot is a unit of water volume having a surface area of one acre and 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 of measurements 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 plot drawn to scale.

3) Total Amount of Product Needed for Treatment

To determine the total number of pounds needed for treatment, find your "Type of Use" in the table below and divide the number of acre-feet covered by one pound into the number of acre-feet in the body of water to be treated. This will give the amount of CHEM SECT BRAND CUBÉ POWDER (based upon 5.0% rotenone content) needed for treatment. Then correct for the actual rotenone content using the following formula.

$$\text{Pounds of CHEM SECT BRAND CUBÉ POWDER} = N \times \frac{\text{rotenone content from Certificate of Analysis}}{0.05}$$

where N = the pounds of 5.0% CUBÉ POWDER required as determined from the table below.

General Guide to the Application Rates and Concentrations of Rotenone Needed to Control Fish in Lakes and Ponds*
(5% Cubé Powder Product)

Type of Use	Active Rotenone (ppm)	5.0% Cubé Powder (ppm)	Acre Feet Covered by One Pound of 5.0% Cubé Powder	Pounds of 5.0% Cubé Powder to Cover One Acre Foot
Selective Treatment	0.005 - 0.007	0.10 - 0.13	2.8 - 3.7	0.25 - 0.36
Normal Pond Use	0.025 - 0.05	0.5 - 1.0	0.37 - 0.74	1.35 - 2.70
Remove Bullheads and Carp	0.05 - 0.10	1.0 - 2.0	0.185 - 0.37	2.70 - 5.41
Remove Bullheads and Carp in Rich Organic Ponds	0.1 - 0.2	2.0 - 4.0	0.093 - 1.85	5.41 - 10.75
Pre-Impoundment Treatment Above Dams	0.15 - 0.25	3.0 - 5.0	0.074 - 0.123	8.13 - 13.51

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

4) Method of Application and Exposure

Pre-Mixing and Method of Application:

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

Detoxification: CHEM SECT CUBÉ POWDER treated waters detoxify under natural conditions within one week to one month, depending upon temperatures, alkalinity, etc. Rapid detoxification can be accomplished by adding chlorine or potassium permanganate to the water at the same rates as CHEM SECT CUBÉ POWDER in parts per million plus enough additional to meet the chlorine demand of the untreated water.

5) Removal of Taste and Odor

CHEM SECT CUBÉ POWDER 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 to each 1 ppm CHEM SECT CUBÉ POWDER remaining. (Note: As CHEM SECT CUBÉ POWDER detoxifies, less charcoal is required.)

6) Restocking

Wait 2 to 4 weeks after treatment. Place a sample of fish to be stocked in wire cages in the coolest part of the treated waters. If the fish are not killed in 24 hours, the water may be restocked.

Treatment of Streams, Immediately Above Ponds, Lakes and Reservoirs

Use in Streams, Immediately Above Ponds, Lakes, or Reservoirs: The purpose of treating streams immediately above lakes, ponds, and reservoirs is to improve the effectiveness of lake, pond, and reservoir treatments by preventing fish from migrating into the stream corridor, 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 while still creating a sufficient barrier to prevent migration of target fish into the stream corridor. To prevent movement of fish from the pond, lake or reservoir, stream treatment should begin before and continue through treatment of pond, lake, or reservoir or until mixing has occurred.

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

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 three 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.)

3) Calculation of Application Rate

In order to calculate the application rate (expressed as "pounds per sec."), you convert the rate in the table (expressed as "pounds per acre-feet"), to "pounds 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 streams is calculated as follows:

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

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

Exposure Time

The "Exposure Time" would be the period of time (expressed in hours or minutes) during which rotenone is applied to the stream in order to prevent target fish from escaping from the pond in the stream corridor.

Amount of Product

Calculate the "Amount of Product" for a stream by multiplying the "Application Rate for Stream" by the "Exposure Time".

$$A = R_s \times H$$

where A = the amount of product for the stream application, R_s = application rate for the stream (pounds/second), and H = the exposure time expressed in seconds.

To facilitate application of CHEM SECT CUBÉ POWDER prepare a pre-mix by adding the "Amount of Product" calculated above into a drum or garbage can and then add 3 - 10 gallons of water. Adjust the rate of application to accommodate the dilution. Allow CHEM SECT CUBÉ POWDER pre-mix to drain from drum directly into center of stream at the rate calculated.