

1439-159

3/25/2003

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

March 25, 2003

TIFA Limited
Tifa Square, 50 Division Ave.
Millington, NJ 07946

Attention: Robert R. Stewart

Subject Chem Fish Synergized
EPA Reg. No. 1439-159
Resubmission of amended label dated October 29, 2002.

Label Approval The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, is acceptable with the following comments:

1. Please move the following statement under the heading "Storage and Disposal": **DO NOT CONATMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL.**
2. Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.
3. A stamped copy of the labeling is enclosed for your records.

Existing Stocks Existing Stocks of previously approved labels may be used for 18 months.

Questions If you have questions about this letter, please contact me at 703-605-0716 (by phone), 703-305-6596 (by fax), or mccann.geri@epa.gov (by E-Mail).

Sincerely yours,

A handwritten signature in black ink, appearing to read "Geraldine McCann".

Geraldine McCann
Insecticide-Rodenticide Branch
Registration Division (7504C)

Enclosure Stamped label

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

DANGER

Fatal if inhaled. May be fatal if swallowed. Harmful if absorbed through skin. Causes substantial but temporary eye injury. Causes skin irritation. Do not breathe spray mist. Do not get in eyes, on skin or on clothing. Wear goggles or safety glasses.

Prolonged or frequent repeated skin contact may cause allergic reaction in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse.

For handling activities during mixing, wear either a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NOISH approval number prefix TC 23C, or a canister approved for pesticides (MSHA/NOISH approval number prefix 14(G).

For all other exposures, wear a dust/mist filtering respirator (MSHA/NOISH approval number prefix TX-21C).

FIRST AID	
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 Swallowed:	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquids to the person. Do not give anything by mouth to an unconscious person.
If on Skin:	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:	Call a poison control center or doctor for treatment advice. 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.
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
Note to Physician	May pose an aspiration pneumonia hazard

**RESTRICTED USE PESTICIDE
DUE TO AQUATIC TOXICITY
AND ACUTE INHALATION**

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

**CHEM -SECT BRAND
CHEM FISH SYNERGIZED**
(2.5% Emulsifiable Concentrate)

(For Control of Fish in Lakes and Ponds)

ACTIVE INGREDIENTS..... 7.5%

Rotenone..... 2.5%

Other Associated Resins..... 2.5%

Technical Piperonyl Butoxide 2.5%

INERT INGREDIENTS..... 92.5%

TOTAL..... 100%

*This product contains aromatic solvents
Consists of 2.35% (Butylcarbityl
Propylpiperonyl ether and 0.15% related compounds

KEEP OUT OF REACH OF CHILDREN

DANGER  **POISON**

See left panel for additional precautionary statements

Tifa Limited
Tifa Square
50 Division Avenue
Millington, NJ 07946 USA
Tel: 908-647-4570
Fax: 908-647-2517/908-647 7338

EPA PESTICIDE EST. #44616-MO-1
EPA REG. No. 1439-159

ACCEPTED
with COMMENTS
In EPA Letter Dated
MAR 25 2003
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
1439-159.

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 permit is needed for such an application. Do not contaminate untreated water when disposing of equipment washwaters.

PHYSICAL AND CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame. (Flash Point Above 80 F).

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL

STORAGE AND 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:

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.

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 1/4 mile upstream of a potable water or irrigation water intake in a standing body of water such as a lake, pond or reservoir.

APPLICATION DIRECTIONS

To Survey Fish Populations

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 applicators are subject to other Federal, State and Local laws and regulations or if permits are required.

To Control Fish Populations Treatment of Lake 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.i. 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 gallons needed for treatment, divide the number of acre-feet covered by one gallon for a specific type of use (e.i. selective treatment, etc.), as indicated in the table below, into the number of acre-feet in the body of water.

CHEM FISH SYNERGIZED should be mixed with water before application, rather than apply it at full strength. A wash tub or garbage can can make a convenient container for mixing. Liquid **CHEM FISH SYNERGIZED** mixes readily with water. In some types of water, **CHEM FISH SYNERGIZED** does not penetrate to the deeper parts of the pond (20 to 25 feet or more) when applied on or at the surface. The deeper parts are usually treated by pumping the mixture through a weighted garden hose with perforated section at the end.

Net Contents _____

Control No. _____

General Guide to the Application Rates and Concentrations of Rotenone Needed to Control Fish in Lakes and Ponds*
(2.5% Emulsifiable Concentrate Product)

Type of Use	No. of Acre Feet Covered by One Gallon	Active Rotenone	2.5% Product
Selective Treatment	15 to 12	0.005-0.007	0.20-0.25
Normal Pond Use	3.0 to 1.5	0.025 - 0.050	1.0 - 2.0
Remove Bullheads Or Carp	1.5 to .75	0.050 - 0.100	2.0 - 4.0
Remove Bullheads Or Carp in Rich Organic Ponds	.75 to .38	0.100 - 0.200	4.0 - 8.0
Pre-impoundment Treatment Above Dam	.50 to .30	0.150 - 0.250	6.0 - 10.0

*Adapted from Kinney, Edward, 1965. *Rotenone in Fish Pond Management* USDI, Washington, DC 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 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 plot drawn to scale.

3) Method of Application and Exposure Time

Pre-mixing and Method of Application: Pre-mix with water at a rate of one gallon CHEM FISH SYNERGIZED to 10 gallons of water. Uniformly apply over water surface or bubble through underwater lines.
Detoxification: CHEM FISH SYNERGIZED treated waters detoxify under natural conditions within 1 week to 1 month, depending upon temperatures, alkalinity, ect. Rapid detoxification can be accomplished by adding chlorine or potassium permanganate to the water at the same rates as CHEM FISH SYNERGIZED in parts per million plus enough additional to meet the chlorine demande of the untreated water.

4) Removal of Taste and Odor

CHEM FISH SYNERGIZED treated waters do not retain a detect 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 FISH SYNERGIZED remaining. (Note: As CHEM FISH SYNERGIZEI detoxifies, less charcoal is required)

5) Restocking

Waters treated with this product detoxify within 3 - 5 days, depend 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 at the same dosage parts per million as rotenone was used for the reclamation treatment.

TREATMENT OF STREAMS IMMEDIATELY ABOVE LAKES AND PONDS

FOR USE IN STREAMS, IMMEDIATELY ABOVE PONDS, LAKE OR RESERVOIRS. Allow CHEM FISH SYNERGIZED to drain from drum directly into center of stream at a rate of 0.85 - 1.7 cc per minute for each cubic foot of water flowing per second in the stream (0.5 - 1.0 parts per million CHEM FISH SYNERGIZED or 0.025 - 0.05 PPM ROTENONE).

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 streamer 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 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 fish 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 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:

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

Where F = flow rate (cu. ft./sec.); W_s = surface width (ft.); D = mean depth (ft.); L = mean distance traveled by float (ft.); C = constant (0 for rough bottoms and 0.9 for smooth bottoms); and T = mean time float (sec.).

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

3) Calculation of Application Rate

In order to calculate the application rate (expressed as "gallon per sec."), you convert the rate in the table (expressed as "gallon per acre-foot"), to "gallon per cu.ft." 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:

$$Rs = Rp \times C \times F$$

Where Rs = Application Rate for Stream (gal./sec.); Rp = Application Rate for Pond (gal./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:
Rs = 1 gal./3 acre-foot x 1 acre-foot/43560 cu.ft. x 10 cu.ft./sec.
Rs = .000076 gals./sec. Or 35 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 140 oz. (35oz./hr. x 4 hr.) or 1.09 gal.

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.