

2000/05

RESTRICTED

20 Kg

ROTENONE FISH POISON

WETTABLE POWDER

KEEP OUT OF REACH OF CHILDREN  
READ THE LABEL BEFORE USING

GUARANTEE: Rotenone 5%

REGISTRATION No. 16580 PEST CONTROL PRODUCTS ACT

ZENECA Agro  
a business of ZENECA Corp.  
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Calgary, Alberta  
T2E 7J2

A93/A-1

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

May irritate eyes. Do not wear contact lenses when using chemicals.

Dust is irritant to nose and throat. Avoid inhalation of dust. Wash hands with soap and water after using and before eating, drinking or smoking.

Do not contaminate food, water supplies, or animal feed.

Hogs are highly sensitive to Rotenone taken internally. Do not water hogs in a freshly treated lake or stream. Farmers downstream of a treated zone who water hogs should be advised of the treatment.

FIRST AID

If dust or water mixture gets into eyes, rinse thoroughly with clean water for 10-15 minutes. If swallowed, do not induce vomiting. Contact a physician or Poison Control Centre. If on skin, wash with soap and water.

TOXICOLOGICAL INFORMATION

Rotenone is practically non-toxic when ingested. Treat symptomatically.

## EMERGENCY TELEPHONE NUMBER

All hours, 1-800-327-8633 ONLY for health and environmental information.

## STORAGE

Rotenone is subject to rapid deterioration in the presence of excessive heat, strong light, moisture and free alkali. Avoid storage near steam pipes, radiators. Keep container tightly closed.

## DISPOSAL

Thoroughly empty the contents of the container into the application device. Follow provincial instructions for any required additional cleaning of the container prior to its disposal. Make the empty container unsuitable for further use. Dispose of container in accordance with provincial requirements. For information on the disposal of unused, unwanted product and the cleanup of spills, contact the regional office of Environmental Protection, Environment Canada.

NOTICE TO USER: This control product is to be used only in accordance with the directions on this label. It is an offence under the Pest Control Products Act to use a control product under unsafe conditions.

NATURE OF RESTRICTION: This product, for the use described, is to be used in the manner authorized - provincial and federal regulations are in effect.

## RESTRICTED USE

## DIRECTIONS

Rotenone is a botanical insecticide derived from plants and is also recommended for the control of undesirable fish species. However, to prevent indiscriminate use of the product, users are required to obtain a permit from provincial authorities before treating any water. Users are advised to seek guidance from the appropriate government agency on specific conditions for fish control where the treatment is to be made. Of particular importance is notification of impending treatment to avoid overflow from a treated lake killing fish several km down river. The use of Rotenone Fish Poison should be in conjunction with a planned programme of fish removal and restocking for best use of the product and best results.

## ESTIMATING REQUIREMENTS

- 1) Determine the size of the lake in terms of cubic metres of

water to be treated. From a map, actual measurement or visual estimate determine the surface area of the lake (1 hectare=10,000 m<sup>2</sup>). Multiply the surface area in m<sup>2</sup> by the average depth in metres. This gives the number of cubic meters (m<sup>3</sup> of water in the lake).

- 2) Determine the amount of Rotenone Fish Poison required. Chub, suckers, and other coarse fish are readily killed with 1.5 ppm of Rotenone Fish Poison product. Catfish, bullheads and carp are considered to be more difficult to kill. Therefore, a second application may be required for the desired kill. To obtain 1.5 ppm concentration of product requires 1.5 kg of Rotenone Fish Poison per 1000 m<sup>3</sup> of water.
- 3) Determine the total amount of Rotenone Fish Poison required. Divide the total volume of water in cubic metres by 1000 and then multiply by the number of kilograms of Rotenone Fish Poison required per 1000m<sup>3</sup>.

#### METHODS OF APPLICATION

A few methods of application are recommended and the method used depends on local conditions and availability of equipment. Local conditions would include depth of water, the presence or absence of thermocline barriers, the fish problem (can be determined by gill netting), feeder streams, water temperature, pH and hardness. Because of these variables, it is recommended that the user consult with the local Ministry of Natural Resources or similar government agency for advice and guidance since these people generally have experience from their fish stocking programmes. Before application, the area to be treated should be clearly marked and size of the area determined. Large areas should be clearly marked off in a 5 m grid for accurate treatment.

- 1) Burlap Bag - For small applications and limited resources, this method is suitable for shallow water. Place the proper amount of Rotenone Fish Poison in a coarse jute bag. Tow this behind an outboard boat followed by another outboard boat to help mix the material. Start at the deepest part of the lake or area and treat towards the shallows. Run the boat in consecutive circles around the lake or area, repeating until all the powder is used. The shallow bays or lake margins should be treated by hand using a hand duster or backpack sprayer. The spray mixture should be 1 kg of Rotenone Fish Poison in 10 L of water with frequent agitation. Apply as a coarse spray or stream.
- 2) Boat Bailers - The Venturi-type boat bailer, either built into the boat, or attached to the cavitation plate of the outboard motor, can be used. The output of the bailer, at a given speed, must be calibrated before use. Prepare a rotenone and water mixture in a 20 L pail by mixing 2 kg of

Rotenone Fish Poison with water up to the 16 L level. Maintain agitation while applying the mixture. The same technique can be used to prepare larger containers of mixture. Continuous agitation of the mixture is important since the rotenone will settle quickly to the bottom of the container.

- 3) Sludge Pump - This method is self-sufficient with the outlet hose trailing in the water and weighted at the end to achieve the desired depth. Prepare a rotenone and water mixture by mixing 1.25 kg of Rotenone Fish Poison with 20 L of water.

NOTE: Only the Sludge Pump method is suitable for treating below a thermocline barrier since the hose end can be weighted to sink below the barrier. Thermocline barriers are layers of water that exist where water temperatures abruptly change from relatively high to relatively low readings creating an area of currents that can resist penetration of certain materials from either above or below the barrier. It may be necessary to treat only a portion of a body of water where certain undesirable fish are known to frequent. In this case, use the most suitable method given above. Undesirable fish not controlled by the treatment will reinhabit the treated area.

#### TREATING INLET STREAMS

Treating inlet streams may be necessary if coarse fish are moving up the stream in their natural course of existence. A permit will be required for this use. Before such treatments are made, the local Ministry of Natural Resources or Provincial Ministry of Environment should be contacted. Some provinces may not permit unsupervised treatment of streams. Careful planning should be done to co-ordinate and avoid spawning times of desirable species if desired. To treat an inlet stream suspend a jute bag containing Rotenone Fish Poison in the water and let the current take the powder away. The jute bag should be placed far enough up stream to obtain the desired reduction of coarse fish.

#### TIME OF APPLICATION

Most fish killing is done in the early fall allowing ample time for the rotenone to detoxify before restocking with fish in the spring.

Temperature has the greatest effect on detoxification of rotenone; the higher the temperature the more rapid the detoxification. Ultra-violet light is also important in detoxifying rotenone. Therefore, the toxic effect will be present for a longer period of time in the cool water of fall and spring than in the warmer water of summer. Water pH and hardness also have an effect on detoxification. These factors should be determined before treating. For these reasons a waiting period is required before restocking with desirable fish.

RESULTS OF TREATMENT

Fish begin to turn up shortly after the powder has been released. A complete kill should occur within several hours. However, some large fish may require a few days to be killed. If the kill, after monitoring by gill netting, is insufficient, repeat the treatment.

NOTICE TO BUYER

Seller's guarantee shall be limited to the terms set out on the label and subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

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