

39096-2

3-17-1999

1/11

March 17, 1999

CERTIFIED MAIL (2-487-320-819)

Aquabiotics Corporation
P.O. Box 10576
Bainbridge Island, WA 98110

300
18
5-548186

Attention: Mr. Nicholas A. Romeo

Subject: Fintrol Concentrate
EPA Reg. No. 39096-2
Your letter of November 17, 1997
Our letter of February 10, 1998
Your Letter of May 28, 1998

In your November 17, 1997, letter, you sought our help in revising this label to bring it up to current standards. The last accepted label for this product was about 29 years ago, June 19, 1970, and at least one state was refusing to register it without updated labeling. In our February 10, 1998, letter, we provided detailed labeling changes for this product, which is packaged as a "kit", consisting of an outer can containing a bottle of Fintrol Concentrate and a bottle of Diluent.

The revised labeling for this product consists of four (4) parts: A) an outer can label, B) a concentrate label, C) a diluent label, and D) an insert.

The labeling submitted with the above letter is acceptable, provided that you submit one (1) copy of final printed labeling with the following changes before you release the product for shipment:

1. On the "Outer Can Label", insure that you format your "Storage and Disposal" text for your "Diluent" as you did for the "Concentrate".
2. Delete the "Environmental Hazards" section for the diluent.
3. On the "Diluent Label", use the same text for "Storage and Disposal" as found on the "Concentrate Label"

This registration will be subject to cancellation in accordance with FIFRA sec. 6(e) if you do not comply with these conditions. Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

2/11

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

Sincerely,



Daniel B. Peacock, Biologist
Insecticide-Rodenticide Branch
Registration Division (7504C)

- Enclosures: 1. Stamped Label
2. Label Type Point Chart

C:\Antimycin\39096-2.MAR:305-5407:3/17/99

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

DANGER: Fatal if swallowed. May be fatal if absorbed through skin. Causes substantial but temporary eye injury. Causes skin irritation. Do not breath spray mist. Do not get in eyes, on skin or on clothing. Wear protective goggles. Wear chemical gloves. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse.

Environmental Hazards

This product is very highly toxic to fish

STORAGE AND DISPOSAL. Do not contaminate water, food or feed by storage or disposal. **SEE OUTER CAN LABEL FOR PROPER STORAGE, PESTICIDE DISPOSAL AND CONTAINER DISPOSAL.**

EPA Reg. No. 39096-2
EPA Est. No. 39096-WA-01

**Fintrol Concentrate for use with
Fintrol(Antimycin) Fish
Toxicant Kit**

Ingredients	(w/w%)
Active Ingredients	
Antimycin A	23%
Inert Ingredients	
Soy lipids	15%
Acetone	62%
	100%

DANGER



Red POISON
KEEP OUT OF REACH OF CHILDREN
Aquabiotics Corp.
PO Box 10576
Bainbridge Island, WA

Physical or Chemical Hazards:

Extremely Flammable: Keep away from fire, sparks and heated surfaces.

FIRST AID 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. If person is unconscious, do not give anything by mouth and do not induce vomiting.
IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with the labeling. See "USE DIRECTIONS LEAFLET" for "Fintrol (Antimycin A) Toxicant Kit"

Under the Federal Insecticide, Fungicide, and Rodenticide Act registered under EPA Reg. No. 39096-2

MAR 17 1999

ACCEPTED
FILING OFFICERS
in EPA Letter Dated:

CONCENTRATE LEAFLET - GREEN FACTORY
GREEN TANK

Fintrol
Concen Fra the Label
39096-2
3-17-99
3/11

PRECAUTIONARY STATEMENTS
Hazards to Human & Domestic Animals

CAUTION: Harmful if swallowed. Harmful if inhaled. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin and clothing. Do not breath spray mist. Do not get in eyes, on skin or on clothing. Wear protective goggles. Wear chemical gloves. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse.

Physical or Chemical Hazards: Extremely **Flammable:** Keep away from fire, sparks and heated surfaces.

First Aid: See Outer Can Label
E.P.A. Reg. No 39096-2

E.P.A. Est. No 39096-WA-01

**Fintrol Diluent
for use with
Fintrol (Antimycin)
Fish Toxicant Kit**

INGREDIENTS (w/w%)

Inert Ingredients	
Diethyl Phthalate (surfactant)	30.5%
Nonoxyl-9 (detergent)	16.7%
Acetone	52.8%
	100.0%

CAUTION
Keep out of reach of children.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. See "USE DIRECTIONS LEAFLET" for "Fintrol (Antimycin A) Fish Toxicant Kit".

Storage and Disposal: Do not contaminate water, food or feed by storage or 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.

AQUABIOTICS CORP.
PO BOX 10576
Bainbridge Island, WA 98110

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 39096-2

MAR 1 1999

ACCEPTED FOR REGISTRATION UNDER FEDERAL REGISTER

FINTROL DILUENT LABEL - BLUE BACKGROUND
BLUE INK

THIS IS MAXIMUM SIZE LABEL THAT CAN FIT ON BOTTLE.

Fintrol Diluent Label
39096-2
3-17-99
4/11

39096-2 5
3-17-99
Fintrol
Can Label
(Front Panel)

RESTRICTED USE PESTICIDE
Due to Aquatic Toxicity & Need for Highly Specialized Applicator training 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 Applicators' Certification. For use exclusively by Federal or state fish and game agency personnel trained in fisheries management or persons under their supervision.

FINTROL- CONCENTRATE (ANTIMYCIN A) FISH TOXICANT KIT

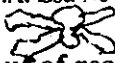
(contains Fintrol Concentrate and Fintrol Diluent)

This can contains 1 bottle of FINTROL-Concentrate and 1 bottle of Fintrol-Diluent
FINTROL CONCENTRATE (8 fl. Oz) FINTROL DILUENT (8 fl. Oz)

Active Ingredients		Inert Ingredients	
Antimycin A	23% w/w	Diethyl Phthalate	
Inert Ingredients		(surfactant)	30.5% w/w
Soy lipids	15%	Nonoxyl-9 (detergent)	16.7%
Acetone	62%	Acetone	52.8%
	100% w/w		100.0% w/w

ACCEPTED
with COMMENTS
in EPA Letter Dated:

MAR 17 1999

AQUABIOTICS CORP. P.O. BOX 10576. Bainbridge Island, WA 98001
E.P.A. Reg. No 39096-2 E.P.A. Est. No 39096-WA-01
DANGER  **POISON**

Keep out of reach of children

See side panel for other Precautionary Statements.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.
See "USE DIRECTIONS LEAFLET" for "Fintrol (Antimycin A) Fish Toxicant Kit"

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
As amended, for the pesticide
registered under EPA Reg. No.
39096-2

GALLON CAN LABEL - CENTER PANEL
WHITE BACK GROUND

39096-2 6/11
3-17-99
Fintrol
Can Label
(Left Panel)

FINTROL CONCENTRATE
PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals

DANGER: Fatal if swallowed. May be fatal if absorbed through skin. Causes substantial but temporary eye injury. Causes skin irritation. Do not breath spray mist. Do not get in eyes, on skin or on clothing. Wear protective goggles. Wear chemical gloves. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse.

Environmental Hazards

This product is very highly toxic to fish.

Physical or Chemical Hazards

Extremely Flammable: Keep away from fire, sparks and heated surfaces.

FIRST AID 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. If person is unconscious, do not give anything by mouth and do not induce vomiting.

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

STORAGE AND DISPOSAL

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

Storage: Store only in original containers, in a dry place inaccessible to children and pets. Fintrol Concentrate will thicken if stored at temperatures below 65 F. Before use store overnight above 70 F. Fintrol Concentrate is stable for a minimum of 3 years when stored in unopened original glass bottles.

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 assistance.

Container Disposal: Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

GALLON CAN LABEL - LEFT PANEL - FINTROL CO
~~GREEN~~ GREEN BACK GROUND

39096-27
3-17-99
Fintrol
Can Label
(Right Panel)

**FINTROL DILUENT
PRECAUTIONARY STATEMENTS**

Hazards to Humans and Domestic Animal

CAUTION: Harmful if swallowed. Harmful if inhaled. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin and clothing. Do not breathe spray mist. Do not get in eyes, on skin or on clothing. Wear protective goggles. Wear chemical gloves. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse.

Environmental Hazards

(???????????)

Physical or Chemical Hazards

EXTREMELY FLAMMABLE: KEEP AWAY FROM FIRE, SPARKS AND HEATED SURFACES.

FIRST AID

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. If person is unconscious, do not give anything by mouth and do not induce vomiting.

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

STORAGE AND DISPOSAL

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

GALLON CAN LABEL - RIGHT PANEL - FINTROL
BLUE BACKGROUND

8/11

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FINTROL®
Fish toxicant *KIT*
USE DIRECTION LEAFLET

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

FINTROL-CONCENTRATE is designed for use in running waters, streams, and shallow waters. This liquid form of FINTROL may be applied to lakes and ponds by boat bailer method or spray equipment. Spray methods are useful at depths to 1 foot. Boat bailer and drip tubes, applied at the propeller wash, are used at other depths. Application from an airplane is *not* recommended.

Each can of FINTROL-CONCENTRATE [containing 240 cc. FINTROL-CONCENTRATE (solution 20%) and 240 cc. Diluent] will, after mixing, treat approximately 38 acre-feet of water at 1 p.p.b.

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 39096-2

MAR 17 1999

ACCEPTED FOR REGISTRATION
INDEPENDENTLY DATED

AQUABIOTICS CORP.

P.O. Box 10576
10750 Arrow Pt. DR NE
Bainbridge Island, WA 98110
EPA Reg. No. 39096-2

EPA EST. NO. 39096-WA-D1

Licensed by:
Wisconsin Alumni Research
Foundation

Trademark licensed by
Ayerst Laboratories, Inc.

39096-2
3-17-99
Fintrol
Insert label

Before applying FINTROL to either public or private waters, write to the Director of the State Fish and Game Department or Conservation Department for State and Federal regulations governing the use of fish toxicants in your area.

DESCRIPTION

The active ingredient of FINROL is antimycin A. When absorbed through the gills of fish, antimycin A kills by interfering with the respiration of body cells. Antimycin A does not repel fish. This is an important advantage, particularly when running waters, bog lakes, and the epilimnion, or upper layer, of large lakes are treated. Fish make no attempt to escape contact with the toxicant by seeking to move into waters that are clear of it. FINROL'S action is rapid and irreversible.

Sensitivity to FINROL varies widely among fish species. Hence it may be employed to selectively destroy certain species, without affecting other species concurrently inhabiting the same body of water.

Sensitive

Gizzard, shad, trouts, pikes, carp, minnows, suckers, brook stickleback, white bass, sunfishes, perches, freshwater drum, sculpins.

Least Sensitive

Shortnose gar, bowfin, goldfish, catfish.

FINROL also may be used to selectively destroy certain age groups of species; younger fish are more sensitive to FINROL.

Providing the concentration is correctly estimated, FINROL can be used effectively at any time of year in either cold, warm, soft, hard, acid, alkaline, clear or turbid (muddy) waters. (See TABLE 1 and instruction for bioassay.)

FINROL does not impart detectable taste or odor to treated waters. In the usual, recommended concentrations it causes no apparent harm to aquatic plants, insects, or bottom fauna. Since FINROL'S active ingredient degrades rapidly, the reclaimed waters may be restocked soon after treatment. (See HOW TO DETERMINE WHEN TREATED WATER MAY BE RESTOCKED.) There is very little interruption in availability of the waters for recreational, agricultural, industrial, or other purpose.

USES

FINROL is used to cull undesirable species of fish from freshwater lakes, ponds, and streams. It can be used to eliminate all fish from a body of water (complete kill). Or, it can be used to remove only certain fish species or size groups from mixed populations (selective kill).

A complete kill may be achieved with a concentration of anywhere from 5 to 25 p.p.b. of active ingredient. (See HOW TO DETERMINE THE MOST EFFECTIVE CONCENTRATION.) FINROL is particularly advantageous for complete kills because it detoxifies so rapidly the pond can usually be restocked in about a week, or as soon as caged fish survive 48 hours' exposure to the treated waters.

Under optimal circumstances, in ponds managed for sports fishing, selective kills may be achieved at concentrations as low as 0.5 to 1.0 p.p.b. However, because these concentrations are extremely low, there is no rule of thumb that can be relied upon to determine them accurately. A BIOASSAY IS ALWAYS REQUIRED TO PINPOINT THE OPTIMAL CONCENTRATION FOR SELECTIVE KILLS. (Literature describing this procedure is available upon request.)

A selective kill has these advantages: It can be made without interrupting sport fishing for more than a week or so, and fishing may be gradually improved without restocking. In the past, when bluegill, minnows, or green sunfish dominated a pond managed for bass, the usual solution to the problem was the total removal of all the fish with a fish toxicant. This meant restocking and little or no fishing for one or two years. Now — with FINROL — this is no longer necessary. Low concentrations of FINROL will affect small bluegill, green sunfish, and minnows primarily. Only a few of the very small bass will succumb. The bulk of the adult bluegill and green sunfish will not be affected. Thus FINROL helps to bring about a balanced relationship between the bass and bluegill populations. This improves fishing without interrupting it for any appreciable length of time.

In catfish farming FINROL can be used to selectively eliminate the trash fish (scale fish) that commonly reduce the yields and increase the costs of the commercial catfish farmer. It is possible to do this with FINROL because concentrations that will eliminate scale fish generally will not harm adult catfish. The scale fish most often encountered by the catfish farmer will succumb to anywhere from 5 to 10 p.p.b. of active ingredient (See TABLE 1) whereas, under ordinary circumstances, it takes in excess of 20 p.p.b. to kill catfish. [Caution should be exercised during "stress conditions" of unusually high water temperature and reduced oxygen content when the sensitivity of fishes to chemicals may increase.]

HOW TO SELECT THE APPROPRIATE FORMULATION

The nature of the water to be treated (its depth and rate of flow) and the character of the surrounding land are factors to be taken into consideration when determining the formulation of FINROL to employ in a given situation.

HOW TO DETERMINE THE MOST EFFECTIVE CONCENTRATION

For complete kills and also for removal of scale fish from catfish ponds.

The concentration of antimycin A required to kill one or more species of fish in any given body of water depends upon: 1) the sensitivity of the species to be eradicated, and 2) the chemical and physical properties of the water at the time of application of the toxicant; the pH and the temperature of the water being the most important of these chemical and physical factors under ordinary circumstances. Therefore, to determine what concentration of antimycin A will be required to kill the undesirable fish in your pond or lake

- 1) identify the species to be eradicated,
- 2) determine the pH and average water temperature by measuring at various sites and depths,
- 3) refer to TABLE 1 for approximate concentrations,
- 4) conduct a bioassay to pinpoint the optimal concentration

TABLE 1 provides a rough estimate of the concentrations required for a complete kill under various environmental conditions. However, since water chemistry is subject to sudden alteration by many variable, and often unpredictable factors (pollution, heavy bloom, weather, drawdown, etc.) it should be realized that such changes may affect the performance of the toxicant. For this reason, measurements of pH and water temperature should always be taken as close to the time of treatment as is feasible.

10/11

TABLE I — FOR ROUGH ESTIMATION OF CONCENTRATIONS* OF FINTROL (ANTIMYCIN A) NEEDED FOR COMPLETE† ERADICATION OF DIFFERENT FISH SPECIES, UNDER VARIOUS COMBINATION OF WATER TEMPERATURE AND WATER pH

TARGET SPECIES**	SENSITIVITY OF TARGET SPECIES TO FINTROL (in p.p.b. of active ingredient)	EFFECTIVE CONCENTRATION OF FINTROL* (in p.p.b. of active ingredient)			
		When pH is 8.5 or less		When pH is 8.5 or more	
		water temperature above 60°F.	water temperature below 60°F.	water temperature above 60°F.	water temperature below 60°F.
col. 1	col. 2	col. 3	col. 4	col. 5	col. 6
gizzard shad					
trouts					
piques					
carp					
minnows	5-10	5	7.5	7.5	10
suckers					
brook stickleback					
white bass					
sunfishes					
perches					
freshwater drum					
sculpins					
shortnose gar					
bowfin	15-25	15	20	20	25
goldfish					
catfish					

* The concentration level suggested by this table should be confirmed by an on-site bioassay.
 † This table is applicable only when a complete kill is desired. Do not use it for a selective kill. (See the following section.)

**Fish nomenclature according to American Fisheries Society
 Note (columns 1 and 2) that the sensitivity of the target species determines the concentration range. To eradicate sensitive species, it is recommended that the appropriate formulation of FINTROL be applied so that the body of water will have a concentration of from 5 to 10 p.p.b. of antimycin A, depending upon variation in pH and water temperature. For more tolerant species, higher concentrations are recommended. Laboratory studies indicate that less sensitive fish will succumb at concentrations of from 15 to 25 p.p.b. of antimycin A, depending upon variations in pH and water temperature. Columns 3 to 6 show how to adjust for pH and water temperature. Note that, in general, the lower the pH, the less FINTROL required. The higher the water temperature, the less FINTROL required. The ideal situation for a complete kill would combine a highly sensitive species, low pH and high water temperature.

For selective kills in ponds managed for sports fishing

*The only way to determine the concentration of FINTROL needed for a selective kill is to perform a bioassay. This involves subjecting both the target and nontarget fish to several concentrations of FINTROL to determine the minimum lethal dose. (A description of the bioassay procedure is available upon request.)

HOW TO CALCULATE THE AMOUNT OF FINTROL TO BE ADDED TO A BODY OF WATER TO OBTAIN A GIVEN CONCENTRATION

To calculate the amount of FINTROL to be added to a body of water for eradication of undesired species, the following steps should be taken

Determine the volume of water to be treated in acre-feet. This can be arrived at by multiplying the surface area in acres by the average depth in feet.

Determine the concentration to be used.

Multiply the number of acre-feet to be treated by the value given opposite the desired concentration in the table for the formulation to be used. (See Tables.)

TABLE FOR RAPID ESTIMATION OF FINTROL-CONCENTRATE REQUIREMENTS

Desired Concentration (p.p.b. active ingredient)	Amount of FINTROL-CONCENTRATE per acre-foot†
1 p.p.b.	12.3 cc. oz. (approx.) 1/2
2 p.p.b.	24.6 3/4
3 p.p.b.	36.9 1 1/4
4 p.p.b.	49.2 1 1/2
5 p.p.b.	61.5 2
6 p.p.b.	73.8 2 1/2
7 p.p.b.	86.1 2 3/4
8 p.p.b.	98.4 3 1/4
9 p.p.b.	110.7 3 3/4
10 p.p.b.	123.0 4

†Obtained by multiplying 12.3 cc. by the p.p.b.
 Note: 1 measuring teaspoon = 5 cc.; 1 measuring tablespoon = 15 cc.; 1/4 standard measuring cup = 60 cc.; 1/2 standard measuring cup = 120 cc.; 1 standard measuring cup = 240 cc.

Sample calculation:
 To treat 75 acre-feet at 3 p.p.b., use:
 36.9 cc. x 75 = 2,767 cc. of FINTROL-CONCENTRATE
 or
 1 1/4 fl. oz. x 75 = 93 3/4 fl. oz. of FINTROL-CONCENTRATE.

