

[LEFT PANEL]

RESTRICTED USE PESTICIDE

DUE TO ACUTE HAZARDS TO THE EYE AND SKIN AND TO NON-TARGET ORGANISMS, NEED FOR HIGHLY SPECIALIZED APPLICATOR TRAINING, AND NEED FOR SPECIALIZED EQUIPMENT.

ONLY FOR SALE TO AND APPLICATION BY CERTIFIED APPLICATORS OF THE U.S. FISH AND WILDLIFE SERVICE, FISHERIES AND OCEANS CANADA AND PROVINCIAL AND STATE FISH AND GAME EMPLOYEES

**TFM HP
Sea Lamprey Larvicide**

Active Ingredient:

TFM, 3-Trifluoromethyl-4-nitrophenol, sodium salt 36.5%
Inert Ingredients: 63.5%
TOTAL: 100.0%

*Equivalent to (33.0%) 3-Trifluoromethyl-4-nitrophenol

This product contains ___ lbs. of TFM per gallon

Batch No. _____ Net Contents _____ lbs.

KEEP OUT OF REACH OF CHILDREN

DANGER-POISON



FIRST AID

Have label with you when obtaining treatment advice.

If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice• Have person sip a glass of water, if able to swallow• Do not induce vomiting unless told to do so by poison control center or doctor
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately, with plenty of water, for 15-20 minutes.• Call a poison control center or doctor immediately for treatment advice.

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If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.• Call a poison control center or doctor immediately for treatment advice.
If in eyes	<ul style="list-style-type: none">• 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.• Call a poison control center or doctor immediately for treatment advice.
Hot Line Number: You may also contact 1-800-858-7378 for health concerns, emergency medical treatment information or pesticide incidents	

SEE LEFT PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

Manufactured For:

Fish and Wildlife Service
United States Department of Interior
18th and C Streets, NW
Washington, DC 20240

EPA Reg. No. 6704-45

EPA Est. _____

[LEFT PANEL]
PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

Acute Hazards: Corrosive. Causes irreversible eye damage and skin burns. May be fatal if swallowed. Harmful if absorbed through skin or inhaled.

Hazard Avoidance: Do not get in eyes, on skin, or on clothing. Avoid breathing vapor. Wear protective clothing as listed under "Personal Protective Equipment." Wash thoroughly with soap and water after handling and before eating or smoking. Remove contaminated clothing and wash before reuse. Prolonged or frequent repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT:

Handlers must wear:

- Coveralls or rubber apron over long-sleeved shirt and long pants
- Chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, or polyvinyl chloride [PVC], Viton)
- Chemical-resistant footwear plus socks
- Protective eyewear (goggles or face shield)

Applicators who apply diluted product must wear:

- Chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, or polyvinyl chloride [PVC], Viton)

USER SAFETY REQUIREMENTS:

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions are provided for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This chemical is toxic to fish and aquatic invertebrates. Non-target organisms may be killed at rates recommended on this label. Directions for use must be strictly followed to minimize hazards to non-target organisms. **Do not** contaminate water by the cleaning of equipment or disposal of wastes.

PHYSICAL AND CHEMICAL HAZARDS

Combustible. Do not use and store near open flame.

Not to be used by unauthorized personnel.

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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.

CATEGORY OF APPLICATOR: Aquatic Pest Control.

USE RESTRICTIONS:

For control of Sea Lamprey Larvae (*Petromyzon marinus*) in the Great Lakes Basin, the Lake Champlain system and the Finger Lakes.

Aerial applications of this product are prohibited.

Local, State, and Provincial Fish and Game Agencies must be contacted before product is applied. Municipalities that use streams requiring treatment as potable water sources must be notified of the impending treatment at least 24 hours prior to application. Known agricultural irrigators that use streams requiring treatment as a source of irrigation water must be notified of the impending treatment at least 24 hours prior to application. Agricultural irrigators must turn off their irrigation system for a 24-hour period during and after treatment.

PRETREATMENT DIRECTIONS:

Pretreatment surveys are always made to determine the presence of sea lamprey larvae. All waters in the Great Lakes Basin, the Lake Champlain system, and the Finger Lakes selected for treatment must first be analyzed on site to determine both the minimum concentration of TFM HP required to kill sea lamprey larvae and the maximum concentration that can be applied without causing undue mortality of non-target organisms. "Analysis" constitutes live animal toxicity tests, or the use of a multiple regression relating toxicity test results to on-site determination of total alkalinity and pH of the body of water.

APPLICATION DIRECTIONS:

When applying this product, do not apply in a way that will cause the concentrated product to contact unprotected workers or other persons, either directly or through drift.

Persons applying TFM HP must follow the Standard Operating Procedures for Application of Lampricides in the Great Lakes Fishery Commission's Integrated Management of Sea Lamprey Control Program, and ensure that the correct application rates are used. Prior to and during the application of this chemical, take appropriate actions to notify public water users including notification actions specified in this manual.

The concentration of TFM HP needed to kill sea lamprey larvae may vary depending upon water chemistry. Measure volume or flow-rate and add the amount of TFM HP necessary at rates based on the foregoing analysis. Dispense TFM HP by application devices sufficiently accurate to maintain predetermined concentration. Concentration in the body of water must be monitored either by spectrophotometric analysis or high-performance liquid chromatography. TFM HP may be used by itself in the treatment of waters in the Great Lakes Basin, the Lake Champlain system, and the Finger Lakes. At times, however, formulations of Bayluscide (EPA REG. NO. 6704-88) may be used in combination with TFM HP (EPA REG. NO. 6704-45) for control of sea lamprey larvae. Application of Bayluscide may be as a simultaneous addition with TFM HP to reduce the amount of TFM HP required or as a subsequent addition downstream to enhance TFM HP larvicidal activity. Prior to using Bayluscide- TFM HP,

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pretreatment surveys must be made to determine the presence of larvae. When using Bayluscide in combination with TFM HP, mix in proportions that result in a final concentration of Bayluscide of not more than 2% of TFM HP by weight (based on active ingredient). Bayluscide may be added to TFM HP in two ways:

1. One method of application is to apply both lampricides at the primary application site. TFM HP is metered into the stream while Bayluscide is applied with a separate pump system in amounts calculated to deliver the desired ratio of Bayluscide to TFM HP. Bayluscide is applied separately to provide a uniform application and to enhance control of concentration.

2. A second application method is to apply Bayluscide into an existing TFM HP block. Because a TFM HP block can be diluted by ground water, swamp seepage, untreated tributaries, occasional rain, or other conditions that cannot be included when the application rates are calculated, the toxicity of the block in the stream must be raised by the addition of TFM HP or Bayluscide. The latter may be used in place of TFM HP. In these situations, TFM HP alone is pumped into the stream at the primary application site. Bayluscide is introduced into the TFM HP block at a point or points downstream in amounts calculated to produce the desired Bayluscide to TFM ratio.

STORAGE AND DISPOSAL

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

STORAGE: Store only in original container, in a dry place inaccessible to children, pets and domestic animals.

SPILLS: Handle and open container in a manner that will prevent spillage. If the container is leaking or material is spilled for any reason or cause, contain spill with a barrier of absorbent material. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized people away. For decontamination procedures or any other assistance that may be necessary, contact Chemtrec at 1-800-424-9300.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide 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: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or puncture and dispose in sanitary landfill, or by other procedures approved by state and local authorities. If rinsate cannot be used, follow pesticide disposal instructions. If not triple rinsed, these containers are acute hazardous wastes and must be disposed in accordance with local, state and federal regulations.

(Front Panel)

RESTRICTED USE PESTICIDE

Due to Acute Eye Irritation, Acute Oral Toxicity and Aquatic Organism Toxicity, Need for Specialized Equipment and Highly Specialized Applicator Training.

For retail sale to, and use only by, USDI, FWS, State Fish and Game, Fisheries and Oceans Canada, and Provincial Certified Applicators trained in sea lamprey control or persons under their direct supervision.

TFM BAR

Active Ingredient:

TFM, 3-Trifluoromethyl-4-nitrophenol 23.0%

Inert Ingredients: 77.0%

TOTAL: 100.0%

KEEP OUT OF REACH OF CHILDREN

DANGER

FIRST AID

Have label with you when obtaining treatment advice.

If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice• Have person sip a glass of water, if able to swallow• Do not induce vomiting unless told to do so by poison control center or doctor
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately, with plenty of water, for 15-20 minutes.• Call a poison control center or doctor immediately for treatment advice.

If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor immediately for treatment advice.
If in eyes	<ul style="list-style-type: none"> • 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. • Call a poison control center or doctor immediately for treatment advice.
<p>Hot Line Number: You may also contact 1-800-858-7378 for health concerns, emergency medical treatment information of pesticide incidents</p>	

See Left Panel for additional precautionary statements.

Manufactured For:

Fish and Wildlife Service
United States Department of Interior
18th and C Streets, NW
Washington, DC 20240

EPA Reg. No. 6704-86

EPA Est No. _____

Batch No. _____

Net Contents _____ lbs.

(Left Panel)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

Acute Hazards: Corrosive. Causes irreversible eye damage. May be fatal if swallowed. Harmful if absorbed through skin or inhaled.

Hazard Avoidance: Do not get in eyes, on skin, or on clothing. Avoid breathing vapors. Wear protective clothing as listed under “Personal Protective Equipment.” Wash thoroughly with soap and water after handling and before eating or smoking. Remove contaminated clothing and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT:

Handlers must wear:

- Protective eyewear (goggles, face shield, or safety glasses)
- Long-sleeved shirt and long pants
- Chemical-resistant gloves (such as Natural Rubber, selection Category A)
- Socks and shoes

User Safety Requirements:

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions are provided for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations:

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This chemical is toxic to fish and aquatic invertebrates. Nontarget organisms (such as freshwater clams and mussels) may be killed at recommended rates. Directions for use must be strictly followed to minimize hazards to non-target organisms. **Do not** contaminate water by the cleaning of equipment or disposing of equipment washwaters.

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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.

READ THIS LABEL:

Read the entire label and Sea Lamprey Control Document No. SLC-92-001[Standard Operating Procedures for Application of Lampricides in the Great Lakes Fishery Commission Integrated Management of Sea Lamprey (*Petromyzon marinus*) Control Program] for correct rates of application. This product must be used strictly in accordance with both the label's precautionary statements and applicable use directions, as well as with all applicable State and Federal laws and regulations.

GENERAL INFORMATION:

This product contains a fast-acting fish toxicant which kills sea lamprey larvae in 1-2 hours. The mode of action is uncoupling of oxidative phosphorylation. As many types of nontarget species are potentially vulnerable to TFM, it is necessary to use care and to follow the requirements of this label to minimize impacts.

USE RESTRICTIONS:

Use Pattern:

TFM Bars may be used for control of sea lamprey (*Petromyzon marinus*) in waters in the Great Lakes Basin, the Lake Champlain system and the Finger Lakes. Only apply this product according to this label.

Permits:

Obtain any permits needed from local, State, Provincial and Federal wildlife authorities.

Potable Water:

At least 24 hours prior to application, notify municipalities and agricultural irrigators that potable and irrigation water will be treated. Agricultural irrigators must turn off their irrigation systems for a 24-hour period during and after treatment. Prior to and during the application of this chemical, take all appropriate actions to notify public water users and municipalities including notification actions specified in the application manual referred to above.

Unauthorized Personnel:

May not be used by unauthorized personnel.

PRE-APPLICATION DIRECTIONS:**Pretreatment Surveys:**

Pretreatment surveys are always made to determine abundance of sea lamprey larvae (*Petromyzon marinus*). All waters in the Great Lakes basin, Lake Champlain system and Finger Lakes that are selected for treatment must first be analyzed on site to determine both the minimum concentration of TFM required to kill sea lamprey larvae and the maximum concentration that can be applied without causing undue mortality of non-target organisms. "Analysis" constitutes live animal bioassays, or the use of multiple regression curves relating toxicity test results to on-site determination of pH or total alkalinity and conductivity of the body of water.

Lethal Concentration:

The concentration of TFM needed to kill a sea lamprey larvae may vary depending upon water chemistry and temperature. Measure volume or flow rate and add the amount of chemical necessary at rates based on the foregoing analysis. Concentration in the body of water must be monitored by spectrophotometric analysis or high performance liquid chromatography.

APPLICATION DIRECTIONS

Bar Placement: Suspend each bar at least one inch above the bottom of the stream to permit movement of water on all sides.

TFM Delivery Rate: When submerged in water, TFM bars dissolve in approximately 8 to 10 hours at 17 °C and 10 to 12 hours at 12 °C in current velocities 0.09 to 0.12 meter/sec. More rapid velocities will cause the bars to dissolve faster. First, calculate the amount of TFM (grams/hr) needed to supply a lethal concentration to larval sea lampreys in the stream. Then calculate the amount of TFM (grams/hr) released from a TFM bar based on the length of time the bars are expected to last at the prevailing temperature. Divide the amount of TFM needed by the amount released per bar to find the number of bars needed.

STORAGE AND DISPOSAL

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

STORAGE: Store only in original container, in a cool (85°F or less) dry place inaccessible to children, pets and domestic animals, and where spills and leakage can be contained. If product becomes soft or liquifies due to high temperatures, cooling to below 85°F will return it to a solid state.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spilled bait, or rinsate is a violation of Federal law. If these wastes cannot be disposed of according to instructions in the application manual, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Offer empty plastic wrappers and packing cartons for recycling if available or dispose of in a sanitary landfill or by incineration, or by other procedures allowed by state and local authorities.