TEM-SEA LAMEREY LARVICIDE

ACTIVE INGREDIEK	TFM (4-Nitro-3-trifluromethylphenol, sodium salt35%
INSET INGREDIENT	
T01AL	100;

Only for sale to and application by contified applicators of U.S. Fish and wildlife Service, Environment Canada, and Previous Lard State fish and game employees or persons under their direct supervision.

FOR CONTROL OF SEA LAMPREY LARVAE

State and Provincial Fish and Same Agencies must first be contacted before product is applied. $(1 + i\pi) \le (-N) - 3/25 = i\pi$

BAYLUSCIDE 70% wettable Powder may be used as a synergist in combination with TFM (EPA REG. No. 6704-45) for control of sea lamprey larvae (Petromyzon marinus) in streams and tributaries of the Great Lakes. Application of BAYLUSCIDE 70% wettable Powder may be made as a similtaneous addition with TFM on larger rivers to reduce the amount of TFM required or as a subsequent addition downstream to enhance TFM larvicidal activity.

Prior to using BAYLUSCIDE-TFM, pretreatment surveys must be made to determine larvae populations.

Each stream selected for treatment must first be analyzed on site to determine both the minimum concentration of material required to kill lamprey larvae and the maximum concentration that can be applied without causing undue fish mortality. "Analysis" constitutes live animal bioassay or the use of a regression established by past bioassays and total alkalinity and conductivity of stream water.

Lethal concentration may vary depending upon water chemistry and temperature. Carefully calculate stream flow-rate and add the amount of material necessary to kill lamprey larvae with minimal fish mortality. Metering devices will be used that accurately deliver application rates as calculated. Chemicals will be mornitored colorimetrically or by gas chromatography to insure that minimum lethal concentrations for sea lampreys are maintained and maximum allowable concentrations are not exceeded.

Directions for Mixing and Application: when using EAYLUSCIDE 70% wettable Powder as a synergist in combination with TFM, mix in proportions 5% as to result in a final concentration of not more than 2% TFM by weight. BAYL STILE 70% wettable Powder may be added to TFM in 2 ways:

- One method of application is a slurry of EAYLUSCIDE 70% Wettable Powder pumped into the stream through a pump while the TFM is fed separately through a conventional fuel pump feeder in amounts calculated to deliver the desired rate of TFM to BAYLUSCIDE. BAYLUSCIDE is more easily mixed as a slurry than with TFM and more uniform feed rates result.
- 2. A second application method is used on the large river systems with multiple tributaries. The number of application sites on these large rivers precludes the use of the first method because of the number of feeders involved, the need for a 110-volt power source at each site to run a pump, and the often difficult access to these sites. On these large systems, TFM alone is fed into the tributaries. Where the tributaries join to form the main stem of the river, BAYLUSCIDE is introduced into the chemical bank in amounts calculated to produce the desired TFM to BAYLUSCIDE ratio. The TFM applications in tributaries are timed so that the individual chemical banks meet and form a chemical bank in the main stream that approximates the chemical concentrations in the tributaries. Since the banks are diluted by ground water, swamp seepage, untreated tributaries, occasionally rain, or other conditions that cannot be included when the application rates for the tributaries are calculated, the toxicity of the bank in the main stream must be raised by the addition of TFM or BAYLUSCIDE. The latter can be used in place of TFM because of the increased toxicity of the TFM-BAYLUSCIDE mixture over TFM alone to sea lamprey larvae.

U.S. DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE SERVICE WASHINGTON, D. C. 20240

EPA Estab. No. 8340-WG-4 EPA Reg. No. 6704-45 ACCEPTIO

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