To: Product Manager Garner (23) TS-767

Through: Dr. Gunter Zweig, Chief Environmental Fate Branch

From: Review Section No. 1 Environmental Fate Branch

Attached please find the environmental fate review of:

Reg./File No.: 4581-ELP-32

Chemical: salt of endothall [mono(N,N-dimethylalkylamine)]

Type Product: Algicide and Herbicide

Product Name: HYDOUT

Company Name: Pennwalt Corporation

Submission Purpose: Aquatic use

ZBB Code: Sec. 5

Date in: 4/20/79

Date Completed: MAY 14 1979

Deferrals To:

☐ Ecological Effects Branch
☐ Residue Chemistry Branch
☐ Toxicology Branch
1. Introduction

1.1 Active Ingredient:

Mono (N,N-dimethylalkylamine) salt of Endothall
Endothall is 7-oxabicyclo (2.2.1) heptane-2,3-dicarboxylic acid
Trade Name: HYDOUT. The formulation contains:
Active Ingredient 22.6%
Inert 77.4%

Chemical Structure:

\[
\text{\( \text{COO}^- \cdot \text{(CH}_3\text{)}_2\text{NH(C}_n\text{H}_{2n+1}) \text{COOH} \)}
\]

\(n = 8, 10, 12, 14, 16, 18\)

1.2 The proposed permit is for the use of 12,240 pounds ai on aquatic weeds, covers 2 years, 40 states and involves 216 acres.
Dosage will vary from 45 lb ai/acre to 68 lb ai/acre. The objectives of the proposed program are
1) To collect data on HYDOUT's weed control spectrum, field dissipation, handling properties, and environmental effects
2) To observe effects on aquatic fauna and non-target flora
3) To monitor control of aquatic weeds as listed on the label
4) To accumulate data on field handling properties of the pelletized formulation.

The applicant is proposing use of the EUP (Re: 458-EUP-32) under present "interim tolerance" (0.2 ppm) for endothall in potable water. The label has been revised as follows:

"Water treated with HYDOUT may be used for swimming 24 hours after treatment. Do not use fish from treated water for food or feed within three days after treatment. Do not use treated water for watering livestock or domestic purpose within 14 days after application.

2. Directions for use:

Distribute HYDOUT from the shore, by boat, or by air as evenly as possible over the area to be treated. Apply HYDOUT as soon as possible after weeds or algae are present and actively growing. Large areas or areas containing dense vegetation should be treated in Sections (1/3 to 1/2 of the dense weed areas) to avoid suffocation of fish. Sections should be treated 10 to 14 days apart. If repeat treatments are needed, wait 10 to 14 days before reapplication.
Application rates:

In still water, lakes or ponds, apply 200-250 lbs per surface acre if average depth is four feet or greater. For average depth of less than four feet, reduce the rate proportionately. For static or slow moving water (up to 0.25 miles per hour), apply at rate of 30 lbs per width (in feet) of ditch or canal.

Discussion of data:

No new environmental chemistry data submitted. Environmental data previously submitted are adequate.

5. Recommendations:

EFB concurs in the proposed experimental use program for HYDOUT. The fate of the chemical in the environment is known for this use.

Ronald E. Ney, Jr.

John R. Harris
Hazard Evaluation Division
Environmental Fate Branch