CASE FILE

FEB 12 1980

To: Product Manager Taylor (25)
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.: 476-EUP-96

Chemical: S-ethyl dipropylthiocarbamate [redacted]

Type Product: Herbicide

Product Name: Eradicane A 6.0-E

Company Name: Stauffer Chemical Company

Submission Purpose: EUP on corn

EFB # 345 Action Code 270

ZBB Code: Sec. 5

Date in: 1/4/80

Date Completed: FEB 12 1980

Deferrals To:

☐ Ecological Effects Branch

☐ Residue Chemistry Branch

☐ Toxicology Branch

Inert Ingredient Information is not Included

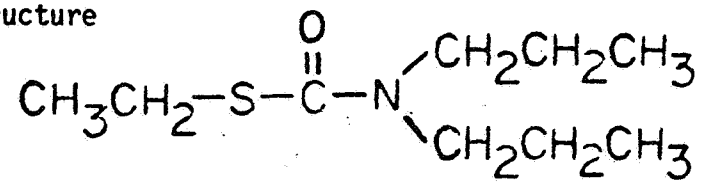
1.0 Introduction

This is a review of Stauffer Chemical Co.'s submission for an EUP for Eradicane A 6.0-E Selective Herbicide (a.i. S-ethyl dipropylthiocarbamate, 73%) for use on corn (Reg./File No. 476-EUP-96), containing [redacted]

Chemical. S-ethyl dipropylthiocarbamate

Other Names. Eptam, EPTC

Structure



2.0 Directions for Use

2.1 The use pattern, season of use, and timing of application will follow the use pattern which is on the currently registered Eradicane 6.7-E label. Use only on soils with less than 10% organic matter. Do not overdose. Do not use on Milo or Sorghum or on corn seed stock. The herbicide must be incorporated into soil for weed control, and it will not control established weeds.

2.2 In the proposed experimental use, 4 or 6 lbs ai/Acre will be applied by ground spray on 1600 acres in 8 Midwestern states (8,000 lbs ai total).

3.0 Discussion of Data

No environmental fate data pertinent to an EUP is presented. S-ethyl dipropylthiocarbamate is currently registered for use on corn (Eradicane Selective Herbicide). The registrant is seeking an EUP for Eradicane A 6.0-E, a formulation which contains S-ethyl dipropylthiocarbamate as the a.i. (73%) and also contains the new [redacted]

[redacted] thiocarbamate herbicides. The mechanism of this increased soil persistence is not suggested by the registrant. The following statements (without data) related to the environmental fate of [redacted] are made by the registrant:

1. [redacted] does not hydrolyze in water at ordinary temperatures.

Inert Ingredient Information is not Included

2. The water solubility is >10 ppm.

3. [redacted] is lost from soil primarily through volatilization (25% loss in 21 days).

4. The formation of metabolites in soil is minor.

4.0 Conclusion

Since the mechanism of increased S-ethyl dipropylthiocarbamate soil persistence (if known) and the degree of increased persistence are not presented in this submission, certain studies are required as a condition of EUP issuance. [redacted]

5.0 Recommendations

For the issuance of the proposed EUP, the data to support the applicant statements regarding hydrolytic stability, water solubility, volatility, and soil metabolism must be submitted.

In addition, the applicant must verify [redacted] since the chemical name presented in Section C, Appendix 1, differs from the chemical structure immediately below.

For full registration, the environmental fate [redacted] must be studied or referenced in the following areas.

1. Hydrolytic stability data

2. Photodegradation in soil, water, and [redacted]

3. Aerobic and anaerobic soil metabolism

4. Effects of microbes [redacted]

5. Mobility data including leaching and adsorption/desorption data, and [redacted]

Inert Ingredient Information is not Included

6. Field dissipation data, especially showing any increased persistence of S-ethyl dipropylthiocarbamate or differences in degradation products.

7. Data to reflect the possibility of uptake of residues by rotational crops due to increased persistence of the active ingredient

The above required studies should also focus on the possibility of differences in the environmental fate of S-ethyl dipropylthiocarbamate due to the [redacted]

Portions of the requirements may be modified or deleted, depending upon the evaluation of the results of the environmental fate studies.

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