4-18-91

Shaughnessy No.: 122804
Date Out of EFGWB: APR 18 1991
DP Barcode: D159322

TO: George LaRocca
Product Manager #15
Registration Division (H7505C)

FROM:

Paul Mastradone, Section Chief
Environmental Chemistry Review Section #1
Environmental Fate and Groundwater Branch

THRU:

Henry Jacoby, Chief
Environmental Fate and Groundwater Branch
Environmental Fate and Groundwater Division (H7507C)

Attached please find the EFGWB review of:

Reg./File # : 618-97, 618-98

Chemical Name: Avermectin

Product Type : Insecticide/miticide

Product Name : ZEPHYR, AGRI-MEK

Company Name : Merck Sharp & Dohme

Purpose : Request meeting with EFGWB to discuss results of field dissipation study, and review letter of proposed soil sample analyses to satisfy requirements of field dissipation study

Date Received: Action Code: 300

Date Completed: EFGWB No.: 90-0691, 90-0692,91-0262

Total Reviewing Time (decimal days): 1.0

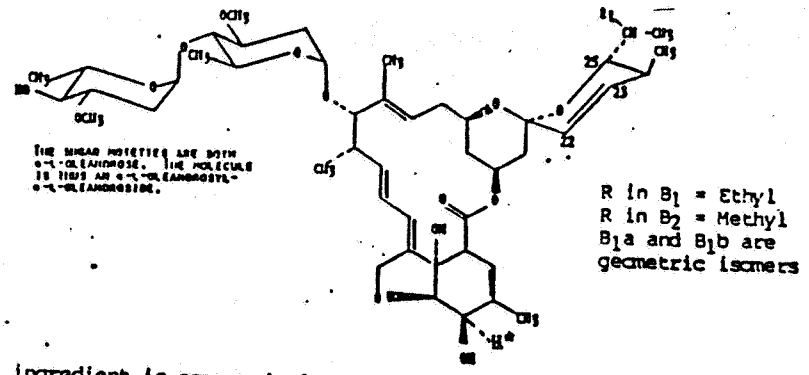
Deferrals to: _____Ecological Effects Branch, EFED
_____Science Integration & Policy Staff, EFED
_____Non-Dietary Exposure Branch, HED
_____Dietary Exposure Branch
_____Toxicology Branch, HED

1.0 **CHEMICAL:** Common name: Abamectin

Chemical name: Avermectin

Trade Name: ZEPHYR, AGRI-MEK

Chemical Structure:



The acive ingredient is composed of not less than 80% avermectin B_1a and not more than 20% avermectin B_1b.

2.0 **TEST MATERIAL:** 0.15 EC Formulation

3.0 **STUDY/ACTION TYPE:** The registrant is (a) requesting a meeting with EFGWB to discuss results of field dissipation study(MRID No. 411915-01), and (b) requesting EFGWB's concurrence with their proposed soil sampling scheme prior to assaying the soil samples deemed necessary for completion of the referenced field dissipation study.

4.0 **STUDY IDENTIFICATION:** NA

5.0 **REVIEWED BY:**

George Tompkins
Entomologist, Review Section 1
EFGWB/EFED

Signature: George Tompkins
Date:

6.0 **APPROVED BY:**

Paul Mastradone
Section Chief, Review Section 1
EFGWB/EFED

Signature: Paul J Mastradone
Date:

7.0 CONCLUSIONS:

7.1 A meeting was held on 26 September 1990 with Drs. Louis S. Grosso of Merck Sharp & Dohme and Paul Mastradone and George Tompkins of EFGWB. At this meeting the results of the field dissipation study(MRID No. 411915-01) were discussed. It was concluded that the frozen soil samples taken after each application needed to be analyzed to complete the missing data gaps in the field dissipation study so that the environmental fate of the applied material could be determined.

7.2 The EFGWB can not concur with the proposed scheme of soil sampling analysis. Sampling at every other application will not allow an accurate determination of the fate of an applied material. It is necessary to analyze the soil samples from each application to determine the fate of the applied material in the soil.

8.0 RECOMMENDATIONS:

It is recommended that the registrant analyze the soil samples taken on the day of each application. By analyzing the samples taken at alternate applications as proposed, no meaningful environmental fate information will be obtained.

9.0 BACKGROUND:

In a previously submitted field dissipation study(MRID No. 411915-01), soil samples were collected prior to spraying and on the day of each of the 10 weekly applications. However, analysis was only performed on selected soil samples, these being the pretreated sample and on the samples taken at 0, 7, 14, 28, 42, 60, 90, and 120 days after the 10th application. No analyses or data were submitted for the soil samples taken between the 1st and 9th spray application to determine the dissipation of an individual treatment or to determine the dissipation in soil of avermectin after the initial treatment.

10.0 DISCUSSION OF INDIVIDUAL STUDIES: N/A

11.0 COMPLETION OF ONE-LINER: No additional data from this action.

12.0 CBI APPENDIX: None