Shaughnessy No: 125401

Date Out of EFGWB: MAY - 1 1989

To: Robert Taylor
Product Manager 25
Registration Division (TS-767)

From: Paul Mastradone, Ph.D.
Chief (acting), Section 1
EFGWB (TS-769C)

Thru: H. Jacoby, Chief
EFGWB/EFED/OPP (TS-769C)

Attached, please find the EFGWB review of:

Reg./File # : 89-VA-04,-05,-06

Chemical Name : Dimethazone

Type Product : Herbicide

Product Name : Command

Company Name : FMC

Purpose : Section 18

MRID :

Date Received : 3/6/89 Action Code: 510

Date Completed: EAB #(s): 90404-90406

Monitoring study requested: Total Reviewing Time: .5 days

Monitoring study volunteered:

Deferrals to: Ecological Effects Branch

Residue Chemistry Branch

Toxicology Branch

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1. CHEMICAL: Dimethazone, Command, FMC 57020, 2-(2-chlorophenyl)methyl-4,4-dimethyl-3-isoxasolidinone

2. TEST MATERIAL: N/A

3. STUDY /ACTION TYPE: Section 18 for snap beans, cucumbers and squash.

4. STUDY IDENTIFICATION: N/A

5. REVIEWED BY:

Stephen Simko, Chemist
Section 1
EFGWB/OPP

S Simko
4.24.89

6. APPROVED BY:

Paul Mastradone, Ph.D.
Chief (acting), Section 1
EFGWB/OPP

Paul Mastradone
MAY - 1 1989

7. CONCLUSIONS:

The environmental fate data are adequate to support this Section 18 only. The ground water assessment by W.M. Williams is that while dimethazone is chemical that leaches, the application rate for this Section 18 is low enough to minimize the concern of ground water contamination. Some crop damage has been reported in the past due to volatilization and drift of dimethazone to off-target areas. The Section 18 application specifies buffer zones of 1500 feet to minimize this probem.

All environmental fate data requirements are satisfied at this time with the exception of additional volatility data that was requested by EFGWB. Dimethazone is stable to hydrolysis, soil photolysis, and has a aqueous photodegradation half-life of 61 days. Dimethazone has an aerobic soil metabolism half-life of 56 to 173 days and a half-life of 13 days under anaerobic conditions. Interim data on volatility was supplied showing that volatility is higher from moist soil than from dry soil. Dimethazone has a moderate leaching potential and a field dissipation half-life of 24 to 80 days. Dimethazone was detected in rotational crops planted at 10 months after application and

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has a bioaccumulation factor of 40x for whole fish. See the environmental fate summary attachment.

8. RECOMMENDATIONS:

EFGWB concurs with the requested Section 18.

9. BACKGROUND:

This Section 18 is for application of Command 4EC herbicide at a rate of 0.4 to 0.5 pt/A (6 oz/A) preemergence or preplant incorporated. The treated area would cover 8000 acres of snap beans, 8000 acres of cucumbers and 500 acres of summer squash starting 3/20/89 and concluding 9/30/89.

10. DISCUSSION OF INDIVIDUAL TESTS AND STUDIES: N/A

11. COMPLETION OF ONE-LINER: N/A

12. CBI APPENDIX: None.

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