Shaughnessy No.: 109702

Date Out of EFGWB: APR 6 1990

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

FROM: Emil Regelman, Supervisory Chemist
Environmental Chemistry Review #2
Environmental Fate and Groundwater Branch/EFED (H7507C)

THRU: Hank Jacoby, Chief
Environmental Fate and Groundwater Branch
Environmental Fate and Effects Division (H7507C)

Attached, please find the EFGWB review of:

Reg./File #(s): 279-EUP-RER

Common Name: Cypermethrin

Chemical Name: (+)-α-cyano-(3-phenoxyphenyl)methyl(+)-cis, trans-3-(2,2-dichloroethenyl)-2,2-dimethlycyclo propanecarboxylate

Type of Product: Insecticide

Product Name: Cynoff WP Insecticide

Company Name: FMC Corporation

Purpose: Application for E.U.P.

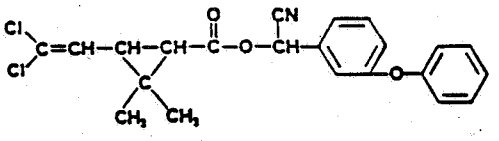
Date Received: 1/17/90 Action Code: 740
EFGWB #(s): 90-0303 Total Reviewing Time: 1

Deferrals to: _____ Ecological Effects Branch/EFED
_____ Science Integration & Policy/EFED
_____ Non-Dietary Exposure Branch/HED
_____ Dietary Exposure Branch/HED
_____ Toxicology Branch I/HED
Toxicology Branch II/HED

1. CHEMICAL:

| | |
|---|---|
| Common Name: | Cypermethrin |
| Chemical Name: | (±)-α-cyano-(3-phenoxyphenyl)methyl(±)-cis,trans-3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate |
| Type of Product: | Insecticide |
| Trade Name: | Cynoff WP Insecticide |

Chemical Structure:



Physical/Chemical Properties

| | |
|---|---|
| empirical formula: | $C_{22}H_{19}Cl_2NO_3$ |
| molecular weight: | 416.28 |
| physical state: | Pure isomers are colorless crystals (mixed isomers are viscous semisolids) |
| aqueous solubility: | 0.2 ppm @ 20° C |

2. TEST MATERIAL: N/A

3. STUDY/ACTION TYPE: Application for E.U.P.

4. STUDY IDENTIFICATION: N/A

5. REVIEWED BY:
Bruce Kitchens, Chemist
Environmental Chemistry Review Section #2
Environmental Fate and Groundwater Branch/EFED

Bruce Kitchens
Date: 3/28/90

6. APPROVED BY:
Emil Regelman, Supervisory Chemist
Environmental Chemistry Review Section #2
Environmental Fate and Groundwater Branch/EFED

Date: APR 6 1990

7. CONCLUSIONS:

EFGWB concludes that sufficient data exists to support the proposed E.U.P. application on ornamentals and turf use sites for Cynoff WP Insecticide. The active ingredient in this product is cypermethrin, registered in 1984. The



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proposed use sites fall in the categories of terrestrial nonfood crop and domestic outdoor use patterns. The environmental fate data requirements for the proposed E.U.P. are as follows: Hydrolysis 161-1, Aerobic Soil Metabolism 162-1, Leaching (Adsorption/Desorption) 163-1, and Fish Accumulation 165-4.

A review of the cypermethrin environmental fate data base shows that all of the data requirements have been satisfied and that the environmental fate of cypermethrin is well understood. At this time no additional data requirements will be imposed for the proposed E.U.P.

8. RECOMMENDATIONS:

Inform the applicant that sufficient data exists to support the proposed E.U.P. on ornamentals and turf use sites for Cynoff WP Insecticide.

9. BACKGROUND:

The current submission is a proposed E.U.P. for the product Cynoff WP Insecticide, registration number 2279-3070. In accordance with 40 CFR 172.4 the applicant states that the purpose of this experimental program is to develop pest efficacy and phytotoxicity data under commercial conditions to support full registration. The applicant has also supplied the total acreage, the total pounds of a.i., and the total amount of compound to be used. See the attached table for specific distribution by states of the use of Cynoff WP Insecticide.

Cypermethrin, a pyrethroid, is registered for use on cotton, lettuce (head), pecans, and cabbage. Application rates vary from a maximum of 1.875 lbs./acre/season for cotton, 2.5 lbs./gal. E.C. for cabbage and lettuce, and 0.06 - 0.1 lbs./acre for pecans.

Cypermethrin is also applied by pest control operators as a crack, crevice, and spot spray treatment in and around stores, warehouses, houses, apartment buildings, etc. Also may be used in nonfood areas in schools, restaurants, and hotels; and food manufacturing, processing, and servicing establishments; as barrier treatments; and as an insect repellent for horses and ponies.

10. DISCUSSION: No study submitted.

11. COMPLETION OF ONE-LINER: N/A

12. CBI INDEX: N/A



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## SECTION G

## CYNOFF® WP INSECTICIDE - PERIMETER/TURF/ORNAMENTALS

## 1990

### SECTION G - 1

### FMC Contact, States of Usage, Acreage to be Treated, Amount of Chemical to be Used

I. FMC Contact

Dr. James B. Ballard - Technical Service Manager
FMC Corporation
Chemical Research & Development Center
PO Box 8
Princeton, N.J. 08543

### SECTION G - 2

II. Distributon and Use

| STATE | ACRES | LBS AI | LB CYNOFF WP |
|---|---|---|---|
| Alabama | 150 | 90.0 | 225.0 |
| Arizona | 200 | 120.0 | 300.0 |
| California | 550 | 330.0 | 825.0 |
| Colorado | 50 | 30.0 | 75.0 |
| Florida | 600 | 360.0 | 900.0 |
| Georgia | 100 | 60.0 | 150.0 |
| Hawaii | 50 | 30.0 | 75.0 |
| Illinois | 125 | 75.0 | 187.5 |
| Indiana | 50 | 30.0 | 75.0 |
| Kansas | 50 | 30.0 | 75.0 |
| Louisiana | 100 | 60.0 | 150.0 |
| Maryland | 50 | 30.0 | 75.0 |
| Massachusetts | 50 | 30.0 | 75.0 |
| Minnesota | 50 | 30.0 | 75.0 |
| Mississippi | 100 | 60.0 | 150.0 |
| Missouri | 50 | 30.0 | 75.0 |
| Nebraska | 50 | 30.0 | 75.0 |
| Nevada | 75 | 45.0 | 112.5 |
| New Jersey | 125 | 75.0 | 187.5 |
| New York | 400 | 240.0 | 600.0 |
| North Carolina | 100 | 60.0 | 150.0 |
| Ohio | 75 | 45.0 | 112.5 |
| Oklahoma | 50 | 30.0 | 75.0 |
| Pennsylvania | 50 | 30.0 | 75.0 |
| Rhode Island | 25 | 15.0 | 37.5 |
| South Carolina | 75 | 45.0 | 112.5 |
| Tennessee | 75 | 45.0 | 112.5 |
| Texas | 500 | 300.0 | 750.0 |
| Virginia | 50 | 30.0 | 75.0 |
| **TOTALS** | **3975** | **2385.0** | **5962.5** |

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