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-phenoxypyphenyl)methyl(+)-cis, trans-3-(2,2-dichloroethyl)-2,2-dimethycyclopropanecarboxylate

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-phenoxynyl)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_{2}NO_{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

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

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
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
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. Distribution and Use

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TOTALS            | 3975  | 2385.0 | 5962.5       |