5412054

DP Barcode: D174806

PC Code No.: 128897

Date out of EFGWB: 19 MAR 1993

3/19/1993

TO: George LaRocca
Product Manager 13
Registration Division (H7505C)

FROM: Paul Mastradone, Ph.D., Chief
Environmental Chemistry Review Section #1
Environmental Fate and Ground Water Branch

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

Attached, please find the EFGWB review of ...

Reg./File #: 010182-00096

Chemical Name: Lambdacyhalothrin

Type Product: Insecticide

Common Name: PP321 (KARATE)

Company Name: ICI Americas, Inc.

Purpose: Review ICI Response to EFGWB

Action Code: 300 EFGWB #(s): 92-0543 Total Review Time: 2.0 days

EFGWB Guideline/MRID Summary Table : The review in this package contains									
161-1		162-1		163-3		165-1		166-1	
161-2		162-2		164-1		165-2		166-2	
161-3		162-3		164-2		165-3		166-3	
161-4		162-4		164-3		165-4		167-1	
201-1		163-1		164-4		165-5		167-2	
202-1		163-2		164-5					

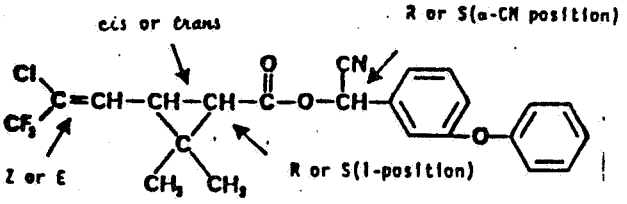
1.0 CHEMICAL:

Common name: Lambdacyhalothrin

Chemical name: [1 alpha-(S),3 alpha (Z)]-(±)-cyano-(3-phenoxyphenyl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2,-dimethylcyclopropanecarboxylate

Trade Name: KARATE Insecticide, TROPHY Insecticide

Chemical Structure:



2.0 TEST MATERIAL: N/A

3.0 STUDY/ACTION TYPE:

Response to ICI Response to EFGWB Review on data base to support new use for broccoli, cabbage, tomatoes and sweet corn, and on turf, trees, nurseries, and ornamentals.

4.0 STUDY IDENTIFICATION:

ICI Response to EFGWB Review dated September 18, 1991 Regarding Proposed New Uses of Lambda-Cyhalothrin: Broccoli, Cabbage, Tomatoes, Sweet Corn (10182-GEE) Turf, Trees, Nurseries, Ornamentals (10182-GEO). MRID # 422070-00, and 422070-01.

5.0 REVIEWED BY:

George Tompkins
Entomologist, Review Section 1
EFGWB/EFED

Signature: George Tompkins
Date: 19 MAR 1993

6.0 APPROVED BY:

Paul Mastradone
Section Chief, Review Section 1
EFGWB/EFED

Signature: Paul J. Mastradone
Date: 19 MAR 1993

7.0 CONCLUSIONS:

EFGWB concludes that the available field dissipation data on file supports a maximum application rate of 0.2 lb a.i./A per season. No new data has been submitted to support a higher rate of application and new field dissipation data will have to be submitted with similar application pattern and rate of application as proposed in the previous submission (EFGWB # 91-0430 and 91-0263, dated 10 Sept 1991).

8.0 RECOMMENDATIONS:

As specified in the 10 Sept 1991 review (EFGWB # 91-0430 and 91-0263) the data requirements for both terrestrial nonfood use and terrestrial food crop use listed in the Conclusion Section of that review for lambdacyhalothrin have all been satisfied through previous submissions at a rate of up to 0.2 lb ai/A per year. An increased application rate would necessitate new field dissipation data with similar proposed application rate and pattern to support any higher use rate.

9.0 BACKGROUND:

See Background Section of EFGWB # 91-0430 and 91-0263 dated 10 Sept 1991.

10.0 DISCUSSION OF INDIVIDUAL STUDIES:

1. The ICI Response to EPA Conclusion 2 of 18 Sept 1991 (Actual date on this review is 10 Sept 1991) of EFGWB states:

ICI has submitted two lambda-cyhalothrin soil dissipation studies; 1.Ritzpatrick, R.D., "PP321 Dissipation in U.S. Soils-1983", ICI Biological Research Center Report No. TMU 1809, (Aug. 1985). [EPA Accession No. 073990, Ref. 11J], and 2. Bewick, D.W., Bartlett, D.W., Hendley, P., "PP 321: Fate of Radiolabeled Material in Soil Under Field Conditions", ICI Plant Protection Division Report No. RJ0529B, (Dec. 1986). [MRID No. 40052407; ICI Vol. 23].

The author of the first study is incorrectly stated in the ICI response. Records indicate that the correct author is Ussary, J.P. and not Ritzpatrick, R.D. However, as stated in the ICI response the first study (EPA Accession No. 073990) was not acceptable because no analyses were made for degradation products.

The second study (MRID No. 40052407) was found to be acceptable (EAB No. 70233, dated 17 Sept 1987). In this fate study, performed in plastic cylinders, PP321 was applied at a rate of 142-146 g ai/ha. Assuming that there is 453.59 grams per pound, this equates to 0.3218 lb/ha which is equal to 0.1303 lb/acre (assuming that there is 2.47 acres per ha).

2. ICI also states that on page 6 of the 17 Sept 1987 EAB review that the acceptable field dissipation study was found acceptable and supports the proposed use on cotton. Further the registrant states that it can therefore be inferred from the 17 Sept 1987 EAB review (erroneously listed as EEB review) that the soil dissipation data support use of 0.375 lb lambda-cyhalothrin per acre per season.

EFGWB does not agree with this statement. On page 3 of the same referred document (dated 17 Sept 1987) in the directions for use it clearly states "do not apply more than 0.2 lb ai/A per season". Additionally it is noted that in a request to amend an EUP for KARATE (EAB No. 60868, dated 4 Feb 1987) the maximal seasonal application rate was established at 0.2 lbs a.i./a. To date no additional studies have been received to support a higher application rate.

11.0 COMPLETION OF ONE-LINER: N/A

12.0 CBI APPENDIX: N/A

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