

US EPA ARCHIVE DOCUMENT

MAY -7 1990

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Date Out of EFGWB:

MAY -7 1990

TO: G. 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 # : 10182-GNN

Chemical Name: PP321

Product Type : Insecticide

Product Name : NINJA 10WP

Company Name : ICI Americas Inc.

Purpose : Application for Registration of NINJA 10WP
Insecticide for use on Ornamentals

Date Received: 9/25/89 Action Code: 165

Date Completed: EFGWB No.: 90779

Total Reviewing Time (decimal days): 3.0

Deferrals to: _____ Ecological Effects Branch, EFED
_____ Science Integration & Policy Staff, EFED
_____ Non-Dietary Exposure Branch, HED
_____ Dietary Exposure Branch
_____ Toxicology Branch, HED

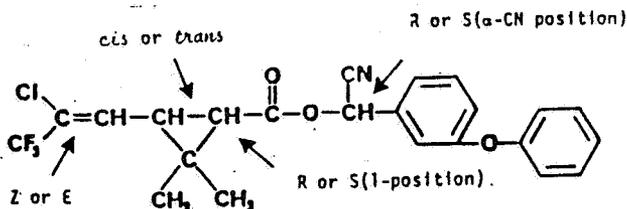
1.0 CHEMICAL:

Common name: PP321

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: NINJA 10WP

Chemical Structure:



2.0 TEST MATERIAL:

No material submitted

3.0 STUDY/ACTION TYPE:

Request to determine if present data base on lambdacyhalothrin is adequate to support an application for registration of NINJA 10WP Insecticide for a new use (terrestrial non-food) in nurseries, yards, and ornamental gardens.

4.0 STUDY IDENTIFICATION:

Application from ICI Americas dated 5 September 1989 for registration of NINJA 10WP Insecticide for control of certain insects in nurseries, yards, and ornamental gardens.

5.0 REVIEWED BY:

George Tompkins
Entomologist, Review Section 1

Signature: *George Tompkins*

Date: *May 3, 1990*

EFGWB/EFED

6.0 APPROVED BY:

Paul Mastradone
Section Chief, Review Section 1
EFGWB/EFED

Signature: *Paul J. Mastradone*

Date: *MAY - - -*

7.0 CONCLUSIONS:

1. The environmental fate data requirements for terrestrial nonfood use are hydrolysis degradation (161-1), photodegradation in water (161-2), aerobic soil metabolism (162-1), leaching and adsorption/desorption (163-1), and soil field dissipation (164-1). A fish accumulation study (165-4) may be conditionally required.

2. The data files indicate that the environmental fate data requirements of PP321 for terrestrial nonfood use have been satisfied through previous submissions for KARATE and COMMODORE. No further data requirements are required at this time.

3. PP321 hydrolyzes with a half-life of approximately 7 days at pH9 but does not hydrolyze at pH7 or 5. It photodegrades at pH5 with a half-life of approximately 30 days, and degrades in less than 30 days on soil surfaces in sunlight. PP321 appears to degrade aerobically and anaerobically in the soil. PP321 is not very mobile in the soil and field studies indicated that there is little downward movement as residues above the limit of detection (0.01 ppm) were found only in the 0-6 inch layers of the soil. A column leaching study indicated that PP321 and its degradates had low mobility in the soil.

8.0 RECOMMENDATIONS:

The data requirements for terrestrial nonfood use listed in the conclusion section for PP321 have been satisfied through previous submissions for KARATE Insecticide for use on cotton.

9.0 BACKGROUND:

1. PP321 (lambda-cyhalothrin) is a synthetic pyrethroid insecticide described as (R+S)-alpha-cyano-3-phenoxybenzyl-(1R+1S)-cis-3-(Z-2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate. It is a 1:1 mixture of the (Z)-(1R,3R),S ester and (Z)-(1S,3S),R ester.

2. Lambda-cyhalothrin is currently registered for use on cotton and as a cattle ear tag. This application represents a new use (terrestrial nonfood) in nurseries, yards, and ornamental gardens for control of certain insects. The label specifies that it is not to be applied to any body of water. The label use rate is 2.4-4.8 oz. of NINJA 10WP per 100 gal water.

3. The relationship between cyhalothrin and PP321 is illustrated in Figures 1 and 2 of a letter dated 30 October 1987 from ICI to the Registration Division (Enclosed). In this letter reference is made to a 1983 meeting in which the Agency advised ICI that cyhalothrin data could be used to support the registration of PP321.

10.0 DISCUSSION OF INDIVIDUAL STUDIES: N/A.

11.0 COMPLETION OF ONE-LINER: N/A

12.0 CBI APPENDIX:

Data submitted are claimed to be CBI and should be treated as such.