Shaughnessy No.: 122101

Date Out of EAB: SEP 20 1988

TO: L. Rossi, PM 21
Registration Division (TS-767C)

FROM: Emil Regelman, Supervisory Chemist
Environmental Chemistry Review Section #3
Environmental Fate and Ground Water Branch/HED (TS-769C)

THRU: Paul F. Schuda, Chief
Environmental Fate and Ground Water Branch/HED (TS-769C)

Attached, please find the EAB review of . . .

Reg./File #: 100617

Chemical Name: 1-[2-(2,4-dichlorophenyl)4-propyl-1,3-dioxolan-2-ylmethyl]-1H-1,2,4-triazole; propiconizole.

Type Product: fungicide

Product Name: Tilt

Company Name: Ciba-Geigy

Purpose: Review of analytical method for soil residues

Date Received: 7-15-88 Action Code: 177

Date Completed: 9-19-88 EAB # (s): 80888

Monitoring Study Requested: _____ Total Reviewing time: 0.5 days

Monitoring Study Volunteered: _____

Deferrals to:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

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1. CHEMICAL:

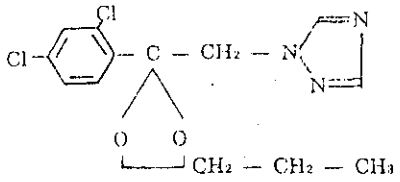
Common Name: Propiconazole

Chemical Name: 1-[2-(2,4-dichlorophenyl)4-propyl-1,3-dioxolan-2-ylmethyl]-1H-1,2,4-triazole

Trade Name: Tilt

Company: Ciba-Geigy

Structure:



Formulations: 3.6 lb/gal E

Physical/Chemical properties:

Empirical formula:	$C_{15}H_{17}O_2N_3Cl_2$
Molecular weight:	341
Physical state:	pale liquid
Boiling point:	180 deg. C. at 0.1 mm Hg
Solubility:	110 ppm in water; well miscible with most organic solvents

2. STUDY/ACTION TYPE: Review of analytical method for residues on soil

3. STUDY IDENTIFICATION:

"An Aquatic Residue accumulation Study of Tilt 3.6E ion Rice and Crayfish Polyculture". Submitted by Ciba-Geigy. No MRID No.

4. REVIEWED BY:

A. Reiter, Chemist
Environmental Chemistry Review Section II
EFGWB/EFED/OPP

Allan J. Reiter

Date: September 19, 1988

5. APPROVED BY:

E. Regelman, Supervisory Chemist
Environmental Chemistry Review Section II
EFGWB/EFED/OPP

E Regelman

Date: SEP 20 1988

6. CONCLUSIONS:

We did not receive a copy of the proposed protocol. However, this branch normally does not review analytical methods outside of the context of an environmental fate guideline, unless the registrant has some compelling reason to ask us.

7. RECOMMENDATION: None.

8. BACKGROUND:

A. Introduction:

RCB has received a protocol from the registrant designed to generate residue data for propiconazole in/on crayfish cultured in rice, water and soil. Their reviewer deferred to EAB on the proposed protocol for residue determination of propiconazole in/on soil samples from treated rice fields.

B. Directions for use: not available.

9. DISCUSSION OF INDIVIDUAL TESTS OR STUDIES: not applicable.

10. COMPLETION OF ONE-LINER: not applicable.

11. CBI APPENDIX: not applicable.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 27 1989

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: EPA Reg. No. 100-617. Propiconazole (Tilt), A Protocol for Residues in/on Crayfish and Water. No MRID Number. RCB No. 3859.

FROM: Sami Malak, Ph.D., Chemist
Tolerance Petition Section III
Residue Chemistry Branch
Hazard Evaluation Division (TS-769C)

TO: Lois Rossi, PM #21
Fungicide-Herbicide Branch
Registration Division (TS-767)

and

Toxicology Branch
Hazard Evaluation Division (TS-769C)

THRU: P. V. Errico, Section Head
Tolerance Petition Section III
Residue Chemistry Branch
Hazard Evaluation Division (TS-769C)

Ciba-Geigy submitted a protocol designed to generate residue data for propiconazole (Tilt) in/on crayfish cultured in rice, water and soil. The proposed protocol, entitled "An Aquatic Residue Accumulation Study of Tilt 3.6E in Rice and Crayfish Polyculture", was initially discussed by the petitioner in a telecommunication with S. Malak on 4/25/88. The data were requested in an earlier telecommunication (1/27/88) in which the petitioner asked what is needed to remove a label statement prohibiting fish farming in treated rice fields. Removal of the propiconazole label statement "Do not use in rice fields where commercial farming of crayfish will be practiced", is

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contingent upon receipt and evaluation of residue data in or on crayfish and water from propiconazole-treated rice fields.

The project is undertaken by Wildlife International Ltd., of Easton, Maryland as a contractor.

For fungi control on rice, propiconazole is currently registered for two aerial applications at 6 fl oz /A/ application (2.5 oz act/A/application equals to 70 gm act/A/application) in a minimum of 5 -10 gallons of water. Applications are not permitted after the boot splits and head emergence.

Propiconazole is regulated under 40CFR§180.434 with a tolerance of 0.1 ppm for rice grain.

Since fish farming is practiced in Louisiana, the petitioner is proposing to generate the data from two sites, one near Crowley and the other in the vicinity of Lake Charles. Treatment will be conducted in accordance with label rate (1X) and directions.

The protocol calls for collecting samples of crayfish, water and sediment from three sites of each of the two propiconazole-treated rice fields. Crayfish samples will be taken one day prior to 1st treatment, one day after each treatment, and five additional samples at one month interval for a total of 48 samples. Water samples will be taken at days -1, 0, 1, 3, and 5 of each of two treatments for a total of 60 samples. The proposed protocol includes control samples and additional soil and water samples for method validation after fortification. Analysis for residues will be determined using an unidentified method that will be submitted by Ciba-Geigy to the contractor.

The petitioner should validate the method(s) of analysis that will be employed for residue determination of propiconazole in/on crayfish and water samples and the method(s) should measure the regulated residues of concern, the parent and metabolites containing the 2,4-dichlorobenzoic acid.

The proposed protocol for residue determination of propiconazole in/on soil samples from propiconazole-treated rice fields should be forwarded to the Exposure Assessment Branch for their review and comments.

Conclusions/Recommendations

1. The petitioner should validate the method(s) of analysis that will be employed for residue determination of propiconazole in/on crayfish and water samples and the method(s) should measure the regulated residues of concern, the parent and metabolites containing the 2,4-dichlorobenzoic acid.

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2. With Conclusions 1 above, RCB can conclude that the proposed protocol for generating residue data in or on crayfish and water from propiconazole-treated rice fields is acceptable.

3. Removal of the propiconazole label statement "Do not use in rice fields where commercial farming of crayfish will be practiced", is contingent upon receipt and evaluation of residue data in or on crayfish and water from propiconazole-treated rice fields.

Note to PM: The proposed protocol for residue determination of propiconazole in/on soil samples from propiconazole-treated rice fields should be forwarded to the Exposure Assessment Branch for their review and comments.

cc: RF, propiconazole or Tilt SF, Circu, PP#4F3074, EPA Reg. No. 100-617, and S. Malak.

RDI: P. V. Errico:6/23/88:R. D. Schmitt:6/23/88.
TS-769C:RCB:CM#2:RM814A:S.Malak:X557-4379:s.m.:6/23/88