9-13-84

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Shaughnessy #: 109702

PROPRIETARY

Date out of EAB: ~~10/16/84~~

Init: 13 SEP 1984

To: A. Heyward
Product Manager #17
Registration Division (TS-767)

From: Joseph C. Reinert, Ph.D., Chief
Special Review Section
Exposure Assessment Branch
Hazard Evaluation Division (TS-769c)

JCR

Attached please find the EAB review of...

Reg./File No.: 10182-TR

Chemical: Cypermethrin

Type Product: I

Product Name: DEMON Insecticide WP

Company Name: ICI

Submission Purpose: Exposure Assessment

ZBB Code: 3(c)(7)

ACTION CODE: 116

Date In: 6/28/84

EFB # 4422

Date Completed: 9/12/84

TAIS (level II)

61 2

Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

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INTRODUCTION

ICI Americas is requesting registration of their product, Demon Insecticide WP, for use as a crack and crevice and spot spray for professional cockroach control. Label information was submitted, and RD requested that EAB do a risk assessment of the product, due 10/16/84.

GENERAL INFORMATION

Demon Insecticide is to be formulated as a wettable powder containing the following:

Active Ingredient

Cypermethrin

(±) alpha-cyano-(3-phenoxyphenyl) methyl)(±)-cis, trans-3-(2,2-dichloroethenyl)-2,2-dimethyl-cyclopropanecarboxylate*
*Cis/trans ratio: 45/55 ± 10

. . . . .	40.0%
INERT INGREDIENTS	60.0%
Total	100.0%

Mixing Instructions:

For Cleanup Treatment

The concentration of active ingredient is given as 0.2% when 2 scoops (0.66 oz) of Demon WP are mixed in 1 gallon of water, or 1 jar (6.6 oz) is mixed in 10 gallons of water.

For Maintenance Treatment

The powder is recommended to be mixed at half the above concentrations. Precautionary statements indicate the product is irritating to eyes and harmful if swallowed or absorbed through the skin.

EXPOSURE ANALYSIS AND CONCLUSIONS

No exposure studies, either for applicators or for residents of treated dwellings were submitted with the request. EAB has no data on file that could be used for this type of exposure assessment. Our recommendation is that RD request that the

company perform such a study. We have on disk a copy of a form letter that may be used to request such a study. It lists EPA documents that are available to describe how monitoring studies and quantitative exposure assessments are carried out. A sample is attached. Please contact me for further information. (703) 557-0699.

Anne R. Keller

Anne R. Keller, Chemist
Special Review Section
Exposure Assessment Branch
Hazard Evaluation Division (TS-769C)

Attachment

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

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Dear ----------,

The Exposure Assessment Branch (EAB) of the Hazard Evaluation Division, Office of Pesticide Programs (OPP) has the responsibility of preparing assesments of exposure for agricultural and other workers during the various activities associated with pesticide application.

As an aid to registrants and others, the following general background documents are available to describe how monitoring studies and quantitative exposure assessments are carried out:

1. Davis, James E. (1980). "Minimizing Occupational Exposure to Pesticides: Personnel Monitoring." Residue Reviews 75: 33.

This review article describes state-of-the-art procedures for the actual field measurement of dermal and respiratory exposure.

2. Severn, David J. (1982). "Exposure Assessment for Agricultural Chemicals" in Genetic Toxicology - An Agricultural Perspective, R.D. Fleck and A. Hollaender, Eds., Plenum Press, New York, p. 235.

This paper presents an overview of how exposure assessments are carried out in EAB, including a discussion of the use of surrogate exposure studies for assessments when no data are available for a particular pesticide.

3. Severn, David J. (1980). "Use of Exposure Data for Risk Assessment." Presented at the "Symposium on Determination and Assessment of Pesticide Exposure." October 29. Hershey, PA.

This paper describes in greater detail what assumptions are made and how exposure assessments are performed in OPP.

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4. Reinert, Joseph C. and Severn, David J. (1984). "Dermal Exposure to Pesticides: EPA's Viewpoint." to be published in a Proceedings Volume of the April, 1984 National ACS Meeting held in St. Louis.

This paper is a synthesis of the methodologies and logistics used in preparing applicator exposure assessments in OPP.

EAB has been assigned the task of writing Worker Exposure Guidelines to aid registrants and others in carrying out field studies designed to monitor pesticide worker exposure. The present goal is to have these Guidelines available for external review by April, 1985.

If more detailed guidance is needed, or if specific questions related to any aspect of pesticide exposure assessment arise, please feel free to contact our office at any time.

Joseph C. Reinert, Ph.D., Chief
Special Review Section
Exposure Assessment Branch
Hazard Evaluation Division (TS-769C)
(703-557-0576)