

US EPA ARCHIVE DOCUMENT

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5 Aquatic  
BERS

DP Barcode : D177151  
PC Code No : 109701  
EEB Out : AUG 3 1993

To: Linda Deluise  
Product Manager 52  
Special Review and Reregistration Division (H7508W)

From: Anthony F. Maciorowski, Chief  
Ecological Effects Branch/EFED (H7507C)

Attached, please find the EEB review of...

Reg./File # : 109701  
Chemical Name : Permethrin, mixed cis,trans  
Type Product : Insecticide  
Product Name : Permethrin  
Company Name : ICI Americas Inc.  
Purpose : Submission of data summaries in support of reregistration.

Action Code : 627 Date Due : 07/19/92  
Reviewer : C. Laird Date In : 04/22/92

EEB Guideline/MRID Summary Table: The review in this package contains an evaluation of the following:

GDLN NO	MRID NO	CAT	GDLN NO	MRID NO	CAT	GDLN NO	MRID NO	CAT
71-1(A)			72-2(A)			72-7(A)		
71-1(B)			72-2(B)	422770-04 422770-05	N N	72-7(B)		
71-2(A)			72-3(A)			122-1(A)		
71-2(B)			72-3(B)			122-1(B)		
71-3			72-3(C)			122-2		
71-4(A)			72-3(D)			123-1(A)		
71-4(B)			72-3(E)			123-1(B)		
71-5(A)			72-3(F)			123-2		
71-5(B)			72-4(A)			124-1		
72-1(A)			72-4(B)			124-2		
72-1(B)	422770-01 422770-02	Y N	72-5			141-1		
72-1(C)			72-6			141-2		
72-1(D)	422770-03	N N				141-5		

Y=Acceptable (Study satisfied Guideline)/Concur  
P=Partial (Study partially fulfilled Guideline but additional information is needed)  
S=Supplemental (Study provided useful information but Guideline was not satisfied)  
N=Unacceptable (Study was rejected)/Nonconcur

US EPA ARCHIVE DOCUMENT



2006491

DATA EVALUATION RECORD

100.0 Pesticide Name: Permethrin

100.3 Submission Purpose:

Submission of five aquatic studies in support of registration.

101.0 Chemical and Physical Properties:

101.1 Common Name:

Permethrin

103.0 Toxicological Properties:

96-Hour LC<sub>50</sub> for bluegill sunfish and rainbow trout (Summary MRID No. 73687; MRID No. 422770-02 and rainbow trout Summary MRID No. 73687; MRID No. 422770-03);  
96-Hour LC<sub>50</sub> for bluegill sunfish (Summary MRID No. 110705; MRID No. 422770-01);  
48-Hour LC<sub>50</sub> for Daphnia magna (Summary MRID No. 110659; MRID No. 422770-05), and  
48-Hour LC<sub>50</sub> for Daphnia magna (Summary MRID No. 42139; MRID No. 422770-04).

105.0 Conclusions:

EEB has validated the five aquatic studies and have the following comments:

A. Bluegill Sunfish (LC<sub>50</sub>; MRID No. 110705)

This study is scientifically sound and meets the guideline requirements for an acute toxicity study using bluegill. Based on mean measured concentrations, the 96-hour LC<sub>50</sub> for Lepomis macrochirus exposed to JFU 5054 was 0.013 mg/l which classifies JFU 5054 as very highly toxic to Lepomis macrochirus. The NOEC could not be determined due to mortality at all test levels in test Series I.

B. Rainbow Trout and Bluegill Sunfish (LC<sub>50</sub>; MRID No. 73687)

These studies are not scientifically sound and do not meet the guideline requirements for an acute static toxicity study using freshwater fish. Water quality was not monitored during the tests. Also, materials and methods used were not fully described (e.g., percentage active ingredient of the test

material was not reported). Based on the nominal concentrations, the 96-hour LC<sub>50</sub> was 20.9 ug/l for rainbow trout and 32.6 ug/l for bluegill sunfish which classifies the test material as very highly toxic to these species. The NOEC was 8.4 ug/l for rainbow trout and 20 ug/l for bluegill sunfish.

C. Daphnia magna (LC<sub>50</sub>; MRTID No. 110659)

This study is not scientifically sound and does not meet the guideline requirements for an acute toxicity study using freshwater invertebrates. Water quality was not monitored during the test. Also, materials and methods used in the test were not fully described (e.g., percentage of active ingredient of the test material was not reported). Based on nominal concentrations, the 48-hour EC<sub>50</sub> was 0.151 ug/l which classifies FMC-33297 3.2 EC as very highly toxic to Daphnia magna. The 48-hour NOEC was 0.084 ug ai/l.

D. Daphnia magna (LC<sub>50</sub>; MRID No. 42139)

This test is scientifically sound but does not meet the guideline requirements for an acute toxicity study using freshwater invertebrates. Several pertinent details of the tests were not reported (see Section 14A). Materials and methods were not fully described. The 48-hour EC<sub>50</sub> for Daphnia magna exposed to PP557 (a formulated product) was 1.31 ug/l nominal which classifies PP557 as very highly toxic to Daphnia magna. The NOEC was 0.5 ug ai/l nominal.

*Curtis E. Laird* 6-21-93  
Curtis E. Laird, Fishery Biologist  
Ecological Effects Branch  
Environmental Fate and effects Division (H7507C)

*Norman J. Cook* 07.30.93  
Norman J. Cook, Head-Section 2  
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*Anthony F. Maciorowski*  
Anthony F. Maciorowski, Chief  
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*A. J. Maciorowski*  
8103193

2/8/93

*Jan*



DP BARCODE: D177151

REREG CASE # 2510

CASE: 819432  
SUBMISSION: S416352

DATA PACKAGE RECORD  
BEAN SHEET

DATE: 04/20/92  
Page 1 of 1

\*\*\* CASE/SUBMISSION INFORMATION \*\*\*

CASE TYPE: REREGISTRATION ACTION: 627 GENERIC DATA SUBMISSION  
CHEMICALS: 109701 Cyclopropanecarboxylic acid, 3-(2,2-dichloroetheny 100.00 %

ID#: 109701

COMPANY:

PRODUCT MANAGER: 52 CHRISTINE RICE 703-308-8177 ROOM: CS1 3F3  
PM TEAM REVIEWER: LINDA DELUISE 703-308-8065 ROOM: CS1 3N3  
RECEIVED DATE: 04/10/92 DUE OUT DATE: 07/09/92

\*\*\* DATA PACKAGE INFORMATION \*\*\*

DP BARCODE: 177151 EXPEDITE: N DATE SENT: 04/20/92 DATE RET.: / /  
CHEMICAL: 109701 Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-di  
DP TYPE: 999 Miscellaneous Data Package  
ADMIN DUE DATE: 07/19/92 CSF: N LABEL: N

ASSIGNED TO	DATE IN	DATE OUT
DIV : EFED	04/20/92	/ /
BRAN: EEB	04/22/92	/ /
SECT:	/ /	/ /
REVR :	/ /	/ /
CONTR:	/ /	/ /

\*\*\* DATA REVIEW INSTRUCTIONS \*\*\*

PLEASE REVIEW

- GUIDELINE 72-1(B) MRID 42277001,02
- GUIDELINE 72-1(D) MRID 42277003
- GUIDELINE 72-2(B) MRID 42277004,05

\*\*\* ADDITIONAL DATA PACKAGES FOR THIS SUBMISSION \*\*\*

DP BC	BRANCH/SECTION	DATE OUT	DUE BACK	INS	CSF	LABEL
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