

US EPA ARCHIVE DOCUMENT

Shaughnessy No.: 059101

Date Out of EFBWB: 11/5/90

TO: Dennis Edwards/Candreas  
Product Manager #12  
Registration Division (H7505C)

FROM: Henry Nelson, Ph.D., Acting Section Chief *H Nelson*  
Environmental Chemistry Review Section #3  
Environmental Fate & Ground Water Branch/EFED (H7507C)

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

Attached, please find the EFGWB review of...

Reg./File # : 062719-00015

Chemical Name: Chlorpyrifos

Type Product : Insecticide

Product Name : Dursban F Insecticidal Chemical

Company Name : Dow Elanco

Purpose : Review protocol on bioaccumulation in oysters.

Date Received: 8/29/90 EFGWB#: 90-0822

Action Code: \_\_\_\_\_ Total Review Time (days): 1.5

- Deferrals to: \_\_\_\_\_ Ecological Effects Branch, EFED  
\_\_\_\_\_ Science Integration & Policy Staff, EFED  
\_\_\_\_\_ Non-Dietary Exposure Branch, HED  
\_\_\_\_\_ Dietary Exposure Branch, HED  
\_\_\_\_\_ Toxicology Branch I, HED  
\_\_\_\_\_ Toxicology Branch II, HED

DP BARCODE: D154931

CASE: 048009  
SUBMISSION: S380962

DATA PACKAGE RECORD  
BEAN SHEET

DATE: 08/29/90  
Page 1 of 1

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

CASE TYPE: REGISTRATION ACTION: PROPOSED TEST PROTOCOL - AMENDMENTS  
CHEMICAL: 059101 Chlorpyrifos ( O,O-diethyl O-(3,5,6-trichloro-2-pyridyl) ph  
ID#: 062719-00015 DURSBAN F INSECTICIDAL CHEMICAL  
COMPANY: 062719 DOWELANCO  
PRODUCT MANAGER: 12 DENNIS JR EDWARDS 703-557-2386 ROOM: CM#2 202  
PM TEAM REVIEWER: CANDREAS  
RECEIVED DATE: 08/10/90 DUE OUT DATE: 11/28/90

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

DP BARCODE: 154931 EXPEDITE: N DATE SENT: 08/29/90 DATE RET.: / /  
DP TYPE: 001 Submission Related Data Package  
ADMIN DUE DATE: 11/07/90 CSF: N LABEL: N  
ASSIGNED TO DATE IN ASSIGNED TO DATE IN  
DIV : EFED 08/29/90 REVR : CBEEGLE / /  
BRAN: EFGB / / CONTR: / /  
SECT: CRS1 / /

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

See cover letter--please review proposed protocol for  
bioaccumulation study in oysters,

THERE ARE NO ADDITIONAL DATA PACKAGE RECORDS

*Herb*  
*EFGB # 90-0822*  
*out 11/7*

*2*

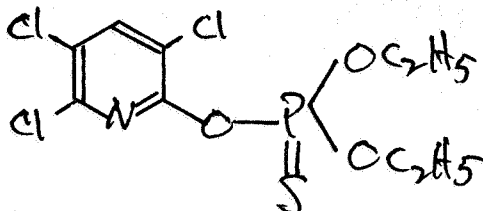
1.0 CHEMICAL:

Common Name- Chlorpyrifos

Chemical Name- O,O-dimethyl-O-(3,5,6-trichloro-2-pyridyl)phosphorothioate

Trade Name- Dursban F Insecticide

Chemical Structure-



Physical/Chemical Properties-

MW: 350.6

Physical State: white solid

Aqueous Sol: 0.5-2 ppm

Vapor Pressure: 1.9E-5 Torr

Log Kow: 4.70

2.0 TEST MATERIAL: See attached protocol.

3.0 STUDY/ACTION TYPE: Dow Elanco is requesting the review of a protocol for the bioaccumulation of chlorpyrifos in Eastern oysters.

4.0 PROTOCOL/DOCUMENT IDENTIFICATION:

1. Letter from Dow Elanco of 10 Aug 1990 to Dennis Edwards (PM 12) of Registration Division (RD) requesting review of protocol.
2. Protocol- Chlorpyrifos: A bioaccumulation test with the Eastern oyster (Crassastrea virginica, Wildlife International Ltd, Easton, MD.

5.0 REVIEWED BY:

Herbert L. Manning, Ph.D.  
Microbiologist, EFGWB/EFED

Signature: *Herbert L. Manning*  
Date:

6.0 APPROVED BY:

Henry Nelson, Ph.D., Acting Chief  
Section 3, EFGWB/EFED

Signature: *H Nelson*  
Date: 11/2/90

7.0 CONCLUSION:

- 7.1 The EFGWB concludes that, except for the omission noted below, the protocol follows the Agency's current (Oct 1982) environmental fate guidelines and should produce an acceptable study.
- 7.2 While the test material (<sup>14</sup>C-chlorpyrifos) will be characterized and described, no specific mention was made of providing the position(s) of the <sup>14</sup>C label in the chlorpyrifos molecule.

8.0 RECOMMENDATION:

- 8.1 Inform the registrant that the protocol should produce an acceptable study if the apparent omission to indicate the radiolabel in the chlorpyrifos molecule is included in the study.

9.0 BACKGROUND:

A. Introduction- Dow Elanco is requesting the review of a protocol for the bioaccumulation of chlorpyrifos in Eastern oysters in compliance with the Second Round Review (SRR) of June 1989 for the reregistration of the insecticide. The bioaccumulation in fish data requirement was satisfied in the SRR; an accumulation study using oysters was an additional requirement imposed by the SRR.

B. Directions for Use- Chlorpyrifos is an insecticide used to control a wide variety of insects. Various formulations containing chlorpyrifos as the active ingredient are registered for use on field and vegetable crops (corn accounts for 57% of use), tree fruit and nut crops, ornamentals, turf, domestic indoor and outdoor uses, commercial establishments, aquatic non-food uses, terrestrial non-food uses, animal housing, beef cattle, and dogs.

10.0 DISCUSSION: See conclusions.

11.0 COMPLETION OF ONE-LINER: Not applicable.

12.0 CBI APPENDIX: Not applicable.

DowEianco  
4040 Vincennes Circle  
Indianapolis, IN 46268-3030



August 10, 1990

Dennis Edwards  
Product Manager (12)  
Registration Division (H7504C)  
U.S. Environmental Protection Agency  
Room 202, Crystal Mall #2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

Dear Mr. Edwards:

**SUBJECT: CHLORPYRIFOS  
REQUEST FOR AGENCY REVIEW OF PROTOCOL FOR BIOCONCENTRATION  
STUDY IN OYSTERS**

In the draft second round Registration Standard for chlorpyrifos (dated June, 1989), the Agency listed a requirement for a 28-day bioaccumulation study with a mollusk. Although the Standard has not been finalized and officially released, we plan to initiate this study in October, 1990. We would appreciate review of the enclosed subject protocol by the appropriate Agency scientists prior to the start of the study.

We appreciate the Agency's assistance. If I can provide any further information, please feel free to contact me at (317) 870-7271.

Sincerely,

A handwritten signature in cursive script that reads "George R. Oliver".

George R. Oliver  
Product Registration Manager

GRO:ldh

Enclosure

PROTOCOL

CHLORPYRIFOS: A BIOCONCENTRATION TEST  
WITH THE EASTERN OYSTER (CRASSOSTREA VIRGINICA)

FIFRA, Subdivision N, Series 165-4

Submitted to

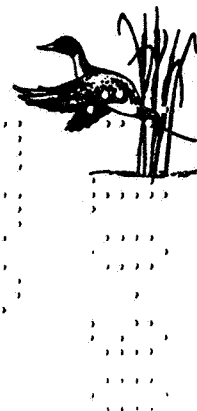
The Dow Chemical Company  
Health and Environmental Sciences  
Environmental Toxicology and Chemical Research Laboratory  
Midland, Michigan 48674



**WILDLIFE INTERNATIONAL LTD.**

305 Commerce Drive  
Easton, Maryland 21601  
(301) 822-8600

July 17, 1990



PROTOCOL NO.: 103/071790/OYS-BIO/DBP8

6

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Page \_\_\_\_\_ is not included in this copy.

Pages 7 through 18 are not included.

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The material not included contains the following type of information:

- Identity of product inert ingredients.
- Identity of product impurities.
- Description of the product manufacturing process.
- Description of quality control procedures.
- Identity of the source of product ingredients.
- Sales or other commercial/financial information.
- A draft product label.
- The product confidential statement of formula.
- Information about a pending registration action.
- FIFRA registration data.
- The document is a duplicate of page(s) \_\_\_\_\_.
- The document is not responsive to the request.

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The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.

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