

US EPA ARCHIVE DOCUMENT

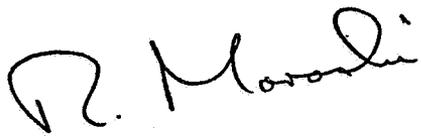
**FILE**

081901

Date Out EFB: 31 OCT 1983

TO: H. Jacoby  
Product Manager 21  
TS-767

FROM: Dr. Richard Moraski  
Acting Chief  
Review Section No. 1  
Exposure Assessment Branch  
Hazard Evaluation Division



Attached please find the environmental fate review of:

Reg./File No.: 50534-8

Chemical: Chlorothalonil

Type Product: Fungicide

Product Name: Bravo 500

Company Name: Diamond Shamrock

Submission Purpose: Add new uses

ZBB Code: Other

ACTION CODE: 336

Date in: 9/27/83

EFB # 3548

Date Completed: 10/31/83

TAIS (level II) Days

63

2

Deferrals To:

           Ecological Effects Branch

           Residue Chemistry Branch

           Toxicology Branch

## 1.0 INTRODUCTION

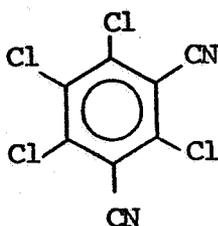
Diamond Shamrock has submitted applications for registration of Bravo 500 (chlorothalonil, as a. i.) for use on onions, garlic, leek, shallot and parsnip; on almonds; on peaches; and on rice and wheat.

### 1.1 Chemical

Common name: Chlorothalonil

Chemical name: Tetrachloroisophthalonitrile

Chemical structure:



## 2.0 DIRECTIONS FOR USE

Use directions are appended to this review.

### 3.0 DISCUSSION OF DATA

3.1 No additional data were submitted with the applications.

3.1 The identical uses of Bravo 500 for use on almonds, rice and wheat were reviewed by EAB in review dated June 28, 1983.

The review concluded that existing data gaps, namely leaching and anaerobic soil metabolism study, must be filled prior to EAB concurrence of the proposed uses.

3.2 The identical use of Bravo 500 for use on peaches was reviewed by EAB in review dated March 9, 1983. Bravo 500 is currently registered for use on peaches with use prohibited after shuck-split stage and before harvest. Additional applications after shuck-split and before harvest were requested.

The review concluded that the leaching potential of chlorothalonil or its degradation product, 4-hydroxy-2,5,6-trichloroisophthalonitrile, (DAC 3701) has not been adequately defined. The additional applications would add to the potential for groundwater contamination in sandy soil areas.

The reviewer was informed by the PM, H. Jacoby, that the registrant was currently conducting a groundwater monitoring study in place of the leaching study. However, EAB had no details on the study.

Note: Whether or not a groundwater monitoring study should be conducted would depend on the results of a properly conducted laboratory leaching study. Such a monitoring study may not be considered a substitute for a leaching study.

- 3.3 EAB, in review dated December 7, 1982, did not concur with registration of chlorothalonil for use on citrus since the data requirement for leaching had not been satisfied. However, in review amendment dated December 16, 1982, EAB did concur with conditional registration of chlorothalonil for use on citrus provided the registrant agrees to satisfy the leaching data gap within a reasonable time.
- 3.4 In review dated January 19, 1982, EAB did not concur with the registration of chlorothalonil did not concur with the registration of chlorothalonil for use on stone fruits. The leaching study data requirement had not been satisfied. The reviewer noted the anaerobic soil metabolism study submitted had been reviewed previously (4/27/76) and was still considered deficient.

#### 4.0 EXECUTIVE SUMMARY

- 4.1 EAB considers the use of chlorothalonil on almonds, wheat and rice, and the expanded use on peaches could significantly increase the potential for leaching and groundwater contamination (if, in fact, leaching occurs). In order to determine this potential, adequate data on leaching and anaerobic soil metabolism are needed.
- 4.2 EAB considers the proposed uses on onions, garlic, leek, shallot, and parsnips would not present as significant an increase in the potential for leaching and groundwater contamination (if, in fact, leaching occurs). These crops have limited acreage of production.

These uses could be conditionally registered while data on leaching and anaerobic soil metabolism are being generated. However, no rotational crop data have been submitted. EAB cannot determine a rotational crop interval where residues will not occur in rotational crops planted after the proposed crops.

#### 5.0 RECOMMENDATION

- 5.1 EAB still objects to the registration of Bravo 500, chlorothalonil as a. i., for use on almonds, wheat and rice and the expanded use on peaches. EAB will reconsider this objection when the leaching study data gap is filled and the deficiencies in the anaerobic soil study (noted in previous EAB reviews) are satisfied, or another study is submitted and accepted.

5.2 EAB does not object to conditional registration of Bravo 500, chloro-thalonil as a. i., for use on onions, garlic, leek, shallot and parsnips provided the registrant agrees in writing to:

- (1) submit a leaching study, and
- (2) resolve the deficiencies of the anaerobic soil metabolism study or submit another study conducted according to current guideline requirements,

within six months of conditional registration.

- 5.3 The registrant must also add a crop rotational restriction to the proposed label prohibiting the planting of crops, other than those already listed on the label, earlier than 18 months after last application to onions, garlic, leek, shallot and parsnips.
- 5.4 EAB is aware that toxicology data have been noted which may trigger an RPAR review. EAB's recommendation should be considered in context of the position being developed concerning new uses for chlorothalonil while undergoing this review.



Clinton Fletcher  
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Exposure Assessment Branch  
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Pages 5 through 6 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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