See File

Shaughnessy No.: 035201

Date Out of EAB: DEC 18 1985

Signature: [signature]

To: WM. Miller
Product Manager # 16
Registration Division (TS-767C)

From: Emil Regelman, Acting Chief
Review Section 3
Exposure Assessment Branch
Hazard Evaluation Division (TS-769C)

Attached please find the EAB review of...

Reg./File# : 201-142

Chemical : Dicrotophos

Type Product: Insecticide

Product Name: Bidrin

Company Name: Shell Oil Co.

Purpose : Response to registration standard; request review of test protocols; request extension of time for data submission.

ACTION CODE(s): 352 EAB # (s): 6061

Date Received : 10/22/85 TAIS Code: 44

Date Completed: 12-17-85 Total Reviewing Time: 1.5 Day

Monitoring requested :

Monitoring voluntarily Done:

Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

12263

10/22/85

REGISTRATION DIVISION DATA REVIEW RECORD

Confidential Business Information — Does Not Contain National Security Information (E.O. 12065)

1. CHEMICAL NAME: Dicrotophos

2. IDENTIFYING NUMBER	3. ACTION CODE	4. ACCESSION NUMBER	TO BE COMPLETED BY PM
201-142	352		5. RECORD NUMBER: 160598
			6. REFERENCE NUMBER: 8
note to EAB: This review responds to Registration Std. Please route to Hudson Boyd as he requested the Std. A copy of our 9/10/85 response to Shell 8/8 letter is attached.			7. DATE RECEIVED (EPA): 10/16/85
			8. STATUTORY DUE DATE
			9. PRODUCT MANAGER (PM): M. Miller-Jones
			10. PM TEAM NUMBER: 16

14. CHECK IF APPLICABLE

- ☐ Public Health/Quarantine
- ☐ Minor Use
- ☒ Protocol All
- ☐ Substitute Chemical
- ☐ Part of IPM
- ☐ Seasonal Concern
- ☐ Review Requires Less Than 4 Hours

TO BE COMPLETED BY PCB

11. DATE SENT TO HED/TSS: 10-22-85

12. PRIORITY NUMBER: 49

13. PROJECTED RETURN DATE: 11-22-85

15. INSTRUCTIONS TO REVIEWER

A. HED
- ☐ Total Assessment - 3(c)(5)
- ☐ Incremental Risk Assessment - 3(c)(7) and/or E.L. Johnson memo of May 12, 1977.

B. SPRD (Send Copy of Form to SPRD PM)
- ☐ Chemical Undergoing Active RPAR Review
- ☐ Chemical Undergoing Active Registration Standards Review

C. ☐ BFSD

D. ☐ TSS/RD

E. ☐ Other

F. INSTRUCTIONS

Shell proposes that certain environmental fate studies be conducted under natural, rather than lab, conditions. Shell also maintains that results of soil metabolism studies are needed prior to design of the field dissipation study.

Do you agree with Shell's proposals and protocols?

16. RELATED ACTIONS

17. 3(c)(1)(D)
- ☐ Use Any or All Available Information
- ☐ Use Only Attached Data
- ☐ Use Only the Attached Data for Formulation and Any or All Available Information on the Technical or Manufacturing Chemical.

18. REVIEWS SENT TO
- ☐ TB
- ☐ EEB
- ☐ EF
- ☐ PL
- ☒ RCB
- ☒ EFB
- ☐ CH
- ☐ BFSD

19.	To	TYPE OF REVIEW	NUMBER OF ACTIONS: Registration	Petition	EUP	SLN	Sec. 18	Inert	MNR. USE	Other
HED		TOXICOLOGY								
HED		ECOLOGICAL EFFECTS								
HED		RESIDUE CHEMISTRY								
HED	☒	ENVIRONMENTAL DATE								Protocol
RD/TSS		CHEMISTRY								
RD/TSS		EFFICACY								
RD/TSS		PRECAUTIONARY LABELING								
BFSD		ECONOMIC ANALYSIS								

20.	21.	22.	23.	24.
☐ Label Submitted with Application Attached	☐ Confidential Statement of Formula	☐ Representative Labels Showing Accepted Uses Attached	Date Returned to RD (to be completed by HED)	Include an Original and 4 (four) Copies of This Completed Form for Each Branch Checked for Review.

1. CHEMICAL:

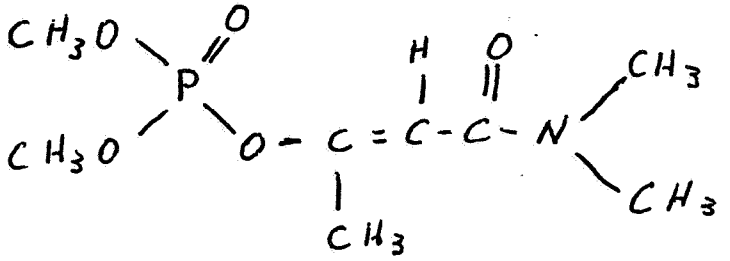
Common Name: Dicrotophos (BSI, ISO)

Chemical Name: Dimethyl cis - 2 - dimethyl - carbamoyl - 1 - - methylvinyl phosphate.

Dimethyl phosphate ester of 3 - hydroxy-N, N-dimethyl- cis - crotonamide.

Trade Name: Bidrin, Carbicron, Ektafos, SD 3562

Structure:



FORMULATIONS:

7.5 amd 8.0 lb. a.i./gal soluble concentrate/liquids (SC/L) and 86% a.i. ready to use (RTU). The SC/L formulations are applied by aerial or ground equipment and the RTU formulation is applied to ornamental trees by a specialized trunk injector.

2. TEST MATERIAL:

No tests were conducted.

3. STUDY ACTION TYPE:

Registrant requests:

a. An extension of time to perform required tests.

b. Permission to conduct certain tests under natural rather than laboratory conditions.

c. Review and approval/disapproval of proposed test protocols.

4. STUDY INDENTIFICATION:

a. Letter dated 10/15/85 advising that ^{14}C-N N-dimethyl acetoacetamide, a precursor for the radiosynthesis of ^{14}C-dicrotophos would not be available in time to complete the required environmental fate studies by the dates last specified by EPA. Letter also explained why the registrant prefers to conduct the tests under natural rather artificial conditions.

b. Proposed protocols as follows:

No. PPL-22-016-85. Aqueous hydrolysis of ^{14}C-SD 3562 (Dicrotophos)

No. PPL-22-017-85. Aqueous photolysis of ^{14}C-SD 3562 (Dicrotophos) under natural sunlight.

No. PPL-22-018-85. Photodegradation of ^{14}C-SD 3562 (Dicrotophos) on soil surfaces under natural sunlight.

No. PPL-22-019-85. Aerobic soil metabolism of ^{14}C-SD 3562 (Dicrotophos)

No. PPL-22-020-85. Anaerobic soil metabolism of ^{14}C-SD 3562 (Dicrotophos)

No. PPL-22-021-85. No. PPL-22-021-85. Soil adsorption and desorption of ^{14}C-SD 33562 (Dicrotophos).

No. PPL-22-022-85. Soil mobility of SD 3562 (Dichrotophos) and its soil degrates.

5.0 REVIEWED BY:

Hudson Boyd
Chemist, Review Section #3
EAB/HED/OPP

Signature: Hudson L Boyd

Date: 12-17-85

6.0 APPROVED BY:

Emil Regelman
Acting Chief
Review Section #3
EAB/HED/OPP

Signature: E Reg Rue

Date: DEC 18 1985

7.0 CONCLUSION:

7.1 No test data were submitted from which to draw conclusions.

7.2 With the exception of proposed protocol No. PPL-22-017-85, Aqueous Photolysis of ^{14}C-SD 3562 (Dicrotophos) under Natural Sunlight, the protocols are acceptable.

8.0 RECOMMENDATIONS:

8.1 Deny the request for time extensions.
Registrant has known of requirements for over 3 years.

8.2 Approve all protocols except PPL-22-017-85

8.3 Allow the registrant to perform the aqueous photodegradation study in natural sunlight provided means are established to maintain a constant temperature of 25 ± 1°C and to prevent volatilization of the test material.

9.0 BACKGROUND:

9.1 The registration standard guidance package was prepared in April 1982 and a 3(c)(2)(B) letter issued June 30, 1982, stating test requirements. Subsequently the registrant requested and was granted certain waivers, VIZ., volatility (lab and field), long term soil dissipation, and field accumulation aquatic non-target species studies. In April 1983 a revised submitted due date was set forth by the EPA and restated to the registrant in June 1985.

9.2 The registrant has stated, as the rationale for conducting studies under natural rather than laboratory conditions that their experience with tests for the environmental fate of other organophosphate compounds shows that natural conditions are more rigorous, i.e., produce more rapid decomposition, shorter residual half-life, and more extensive degradation.

10. DISCUSSION OF INDIVIDUAL TESTS OR RESULTS:

Without temperature controls, photosythensis tests conducted on the roof of a building near Modesto, CA., as proposed by the registrant (PPL-22-017-85), could not define the kinetics of the reaction as required by the EPA Guidelines for Registration.

11. COMPLETION OF ONE LINER:

A one liner was not initiated.

12. CBI APPENDIX:

No CBI is involved, therefore, no appendix.