6-7-88

Shaughnessy Number: 103301

Date Out of EAB: 6/7/88

TO:
Product Manager 16
Registration Division (TS-767C)

FROM: Frank L. Davido, Chief
Field Studies/Special Projects Section #5
Exposure Assessment Branch/HED (TS-769C)

THRU: Paul F. Schuda, Chief
Exposure Assessment Branch/HED (TS-769C)

Attached, please find the EAB review of:

Reg./File #: 239-2471

Chemical Name: ACEPHATE

Type Product: Insecticide

Company Name: Chevron Chemical Co.

Purpose: Glove Permeability Study Protocol

Date Received: 3/14/88 Action Code: 352

Date Completed: 6/6/88 EAB #(s): 80531

Monitoring study requested: ___ Total Reviewing Time: 8 hrs.

Monitoring study volunteered: ___

Deferrals to: _____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

(1)

# REGISTRATION DIVISION DATA REVIEW RECORD

3/14/88

*Confidential Business Information — Does Not Contain National Security Information (E.O. 12065)* 44965 HQ

1. CHEMICAL NAME: Bicephate — 215340

| 2. IDENTIFYING NUMBER | 3. ACTION CODE | 4. ACCESSION NUMBER | TO BE COMPLETED BY PM |
|---|---|---|---|
| 239-2471 | 352 | | 5. RECORD NUMBER: [illegible] |
| | | | 6. REFERENCE NUMBER: |
| | | | 7. DATE RECEIVED (EPA): 2/3/88 |
| | | | 8. STATUTORY DUE DATE: |
| | | | 9. PRODUCT MANAGER (PM): Miller |
| | | | 10. PM TEAM NUMBER: 16 |

14. CHECK IF APPLICABLE

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

TO BE COMPLETED BY PCB

11. DATE SENT TO HED/TSS: 3-10-88

12. PRIORITY NUMBER: 23

13. PROJECTED RETURN DATE: 4-11-88

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.

C. ☐ BFSD

D. ☐ TSS/RD

E. ☐ Other

B. SPRD (Send Copy of Form to SPRD PM)

☐ Chemical Undergoing Active RPAR Review

☐ Chemical Undergoing Active Registration Standards Review

F. INSTRUCTIONS: Proposed protocol - glove permeability study - required under Bicephate Registration Std.

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 | | | | | | | | |
| | ECOLOGICAL EFFECTS | | | | | | | | |
| | RESIDUE CHEMISTRY | | | | | | | | |
| | ENVIRONMENTAL DATE | | | | | | | | |
| TSS/RD | CHEMISTRY | | | | | | | | |
| | EFFICACY | | | | | | | | |
| | PRECAUTIONARY LABELING | | | | | | | | |
| BFSD | ECONOMIC ANALYSIS | | | | | | | | |

20. ☐ Label Submitted with Application Attached

21. ☐ Confidential Statement of Formula

22. ☐ Representative Labels Showing Accepted Uses Attached

23. Date Returned to RD (to be completed by HED)

24. Include an Original and 4 (four) Copies of This Completed Form for Each Branch Checked for Review.

EPA Form 8570-13 (Rev. 11-81) PREVIOUS EDITIONS ARE OBSOLETE

2

JUN 7 1988

I. TITLE

Protocol for Glove Permeability Study of Acephate

II. SUBMITTER

Chevron Chemical Company, Consumer Products Division, Richmond, California

III. REGULATORY PURPOSE OF SUBMISSION

To support the registration of acephate end use products.

IV. DATA REQUIREMENT

158.142 Glove Permeability Study

V. PESTICIDE CHEMICAL

Acephate (ORTHENE)

VI. REVIEWER

Alan P. Nielsen, Exposure Assessment Branch, Hazard Evaluation Division (TS-769C), Office of Pesticide Programs, USEPA

VII. OBJECTIVE

To determine the duration of maximum protection from exposure to ORTHENE provided by typical gloves worn during application.

VIII. TEST METHOD

ASTM F739-85, Standard Test Method for RESISTANCE OF PROTTECTIVE CLOTHING MATERIALS TO PERMEATION OF LIQUIDS OR GASES

IX. PERMEANT

Three end use formulations will be tested:

ORTHENE Insect Spray (239-2436)
ORTHENE Systemic Insect Control (239-2461)
ORTHENEX Insect & Disease Control Formula II (239-2574)

X. TEST SPECIMEN

Gloves made of latex and PVC

XI. TEST PROCEDURE

The test will consist of five samples per test with sampling at 0, 15, 30, 45, and 60 minutes. The test will be conducted at ambient temperature. Breakthrough times and permeation will be measured.

XII. REVIEWER'S COMMENTS

The following questions which need to be addressed before this protocol can be approved:

(1) What are the specific brands of gloves to be tested? Are these like the disposable gloves used by medical personnel? Why not polyethylene or neoprene?

(2) Will the test swatches be cut from the palms of the gloves?

(3) What is the rationale for only running the test for one hour as opposed to eight hours? Permeation of gloves will still take place even if the gloves are not being worn after the initial exposure to acephate but could theoretically breakthrough by the time the gloves are put on again. Obviously, disposability of the gloves being worn is an important factor in regard to this issue.

(4) Does the solubility of acephate meet the criteria in Section 3.3 of ASTM 739-85? If so, I assume that distilled water will be used as the collecting medium.

(5) What analytical methodology/instrumentation will be used in this study?

(6) Will steady-state permeation be measured? Permeation data should be reported as descibed in ASTM 739-85, Section 13 (measurement of steady-state permeation is not required in this data call-in).

XIII. CONCLUSION

This protocol is classified as Supplemental (basically scientifically sound, except for the questions raised above). Please ask the submitter to respond in writing to the Agency, but I would very much like to discuss my comments with the author of the protocol first. I will approve the protocol once these minor issues are resolved.