

US EPA ARCHIVE DOCUMENT

File 6-7-88
file

Shaughnessy Number: 103301

Date Out of EAB: 6/7/88

TO: Product Manager 16
Registration Division (TS-767C)
FROM: Frank L. Davido, Chief *Frank Davido*
Field Studies/Special Projects Section #5
Exposure Assessment Branch/HED (TS-769C)
THRU: Paul F. Schuda, Chief *Paul F. Schuda*
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

REGISTRATION DIVISION DATA REVIEW RECORD

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

3/14/88

44965 HQ

215340

1. CHEMICAL NAME *Acophate*

2. IDENTIFYING NUMBER <i>239-2471</i>	3. ACTION CODE <i>352</i>	4. ACCESSION NUMBER	5. RECORD NUMBER 215340
			6. REFERENCE NUMBER
			7. DATE RECEIVED (EPA) <i>2/3/88</i>
			8. STATUTORY DUE DATE
			9. PRODUCT MANAGER (PM) <i>M. J. Kei</i>
			10. PM TEAM NUMBER <i>16</i>

14. CHECK IF APPLICABLE

Public Health/Quarantine Minor Use *Protocol* *PH*

Substitute Chemical Part of IPM

Seasonal Concern Review Requires Less Than 4 Hours

TO BE COMPLETED BY PCB

11. DATE SENT TO HED/FSS
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

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

Chemical Undergoing Active RPAR Review

Chemical Undergoing Active Registration Standards Review

C. BFS/D TSS/RD Other

F. INSTRUCTIONS

Proposed protocol-glove permeability study req. required under Acophate 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 BFS/D

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 DATA								<input checked="" type="checkbox"/>
EPA-AD/TSS	CHEMISTRY								
	EFFICACY								
	PRECAUTIONARY LABELING								
BFS/D	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.

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 PROTECTIVE 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. Break-through 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 break-through 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 described 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.

Al Nelson