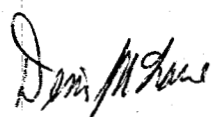
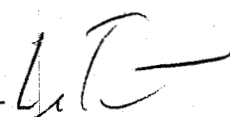


Addendum
DATA EVALUATION RECORD

1. CHEMICAL: Phorate
2. TEST MATERIAL: AC 35,024 99% radiopurity
3. STUDY TYPE: 72-4(a) - Sheepshead Minnow (*Cyprinodon variegatus*) Early Life Stage Study (or Embryo/Larvae)
4. CITATION:
Author: Sousa, J. V.
Title: (AC 35,024) Toxicity Test with
Sheepshead Minnow
(*Cyprinodon variegatus*) Embryos and
Larvae; (Addendum additional data)
Date: 5-17-94
Laboratory Report #: 90-7-3369
Any Other Study #: 451.0889.6112.505
Sponsor: American Cyanamid Company
Laboratory: Springborn Laboratories, Inc, Wareham,
MA
MRID No.: 418038-06

5. REVIEWED BY:
Dennis J. McLane, Wildlife Biologist Signature: 
Ecological Effects Branch
Environmental Fate and Effects Division (H7507 C) Date: 5-18-94
6. APPROVED BY:
Les Touart, Chief, Section 1 Signature: 
Ecological Effects Branch
Environmental Fate and Effects Division (H7507C) Date: 6-2-94
7. CONCLUSION The study fulfills the intent of the guidelines.
Based on the measured concentrations, the LOEC and NOEC
for weight and length were 190 ng/L and 96 ng/L,
respectively. This was based on the results of the
Dunnett's test. The Dunnett's test (parametric)
accommodates natural variation than the chi-square test
(non parametric) and does not require the dose response
relationship the William's test assumes.
8. RECOMMENDATIONS N/A
9. BACKGROUND This addendum is in response to submission of
additional data, time to hatch data, MRID 42940401





VOLUME 1

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September 23, 1993

Office of Pesticide Programs
Document Processing Desk (RS-103)
U.S. Environmental Protection Agency
Crystal Mall, Bldg #2
1921 Jefferson Davis Highway
Arlington, VA 22202

429404- $\phi\phi$

Attention: Ms. Joanne Edwards

Re: Phorate Registration Standard, Case Number 103: Additional
Data to Support Guideline Number 72-4(a): Protocol for 72-4(b):
Your Letter of August 9, 1993

Dear Ms. Edwards:

Attached in Volume 3 of this submission is the additional data requested in the Ecological Effects Branch review transmitted with your letter to upgrade the sheepshead minnow study. Contingent upon the Agency's review and acceptance of these data, we believe we have fulfilled the requirements for Guideline Number 72-4(a).

American Cyanamid Company agrees to conduct and submit another mysid shrimp study to address the data requirement 72-4(b). A protocol for your approval is attached immediately behind this letter. We agree to submit this study within one year from the date the Agency approves the protocol.

The primary reason for submitting this protocol is to propose pooling the mysids in groups of 10 rather than pairing them. This would eliminate the need to replace dead male mysids, which was one of the reasons the original study was rejected. This procedure also eliminates handling which contributes to this mortality. We require Agency approval prior to initiating the study because this proposal is a deviation from the ASTM procedure and the Agency provides no protocol or guidance for conducting this study.

We request a response on this protocol by November 1, 1993 so we may begin the study at the earliest possible date.

Please contact me directly on extension 2214 if you have any questions concerning this submission.

Sincerely,

John J. Arthur
Product Registrations Manager
U.S. Regulatory Affairs

JJA:dt