CASE 65 0092 NALED PM 110 ~~1/21/82~~

CHEM 034401 Naled (1,2-dibromo-2,2-dichloroethyl d

BRANCH EEB DISC TOPIC Special Order ~~GUIDELINE~~

FORMULATION ~~TC = ACTIVE INGREDIENT~~

FICHE/MASTER ID 00001321 CONTENT CAT

Zimmerman, J.H. (1969) Toxicity of Paris Green, Methoxychlor and New Organophosphate Insecticides to Salt Marsh Killifish and Crustaceans: GAbatel. (Unpublished study received Nov 26, 1971 under 241-132; prepared by Univ. of Delaware, submitted by American Cyanamid Co., Princeton, N.J.; CDL:129448-0)

SUBST. CLASS = .

OTHER SUBJECT DESCRIPTORS
PRIM:
SEC:

DIRECT RVW TIME = (MM) START-DATE END DATE

REVIEWED BY: Kyle Barbehenn
TITLE: Wildlife Biologist
ORG: HED/EEB
LOC/TEL: Cm 2-1121/557-1121

SIGNATURE: DATE: 8/5/82

APPROVED BY:
TITLE:
ORG:
LOC/TEL:

SIGNATURE: DATE:

See attached review by R. S Levens Oct 30, 1979

DATA EVALUATION RECORD

1 + 2. CHEMICAL/FORMULATION: Abate 1% G, Abate ULV, Abate 4-E, Paris Green 7.5% G, Methoxychlor 5% G, Dibrom 14 ULV

3. CITATION: Zimmerman, J.H. (1969). Toxicity of Paris Green, Methoxychlor and New Organophosphate Insecticides to Salt Marsh Killifish and Crustaceans: Abate- (Unpublished study received Nov. 26, 1971 under 241-132; prepared by Univ. of Delaware, submitted by American Cyanamid Co., Princeton, N.J.: DCL:129448-C) ID# 0000 1321.

4. REVIEWED BY: R.R. Stevens
Biologist, EEB/HED
October 30, 1979

5. TEST TYPE: Estuarine - Small Plot
A. Killifish (Fundulus heteroclitus)
Grass shrimp (Palaemonetes pugio)
Fiddler crab (Uca pugnax)

6. REPORTED RESULTS: Only an abstract is presented and hence yielded no concrete results.

7. REVIEWER'S CONCLUSIONS: This study is unacceptable to fulfill any portion of the Guidelines.

8. MATERIALS/METHODS:

Test Procedures

None presented, only an abstract is presented.

Statistical Analysis

None reported.

9. REPORTED RESULTS: Results of small plot tests conducted dur- the summer of 1967, indicated that Abate 1% granular produced only slight killifish mortality at all dosages ranging from .05 to 1 lbs./A. However, abate 1% granular when applied to grass shrimp pools, produced significant mortality (15 to 70 percent) at the higher dosage levels of .5 to 2 lbs./A. Methoxychlor 5% granular produced very significant grass shrimp mortality (65 to 100 percent) at dosage levels ranging from .05 to 5 lbs./A. Methoxychlor was also very toxic to killifish at the .5 to 5 lbs./A rates. Dibrom 14 ULV, at the recommended field dosage of 1 fl. oz./A, produced no killifish mortality or disorientation. However, grass shrimp mortality was 65 percent following the first application of Dibrom 14 ULV at the dosage rate of 1 fl. oz./A.

Results of small plot work conducted during the summer of 1968, showed that Paris Green 7.5% granular had no significant effect on fiddler crabs, grass shrimp or killifish at the dosages tested, .25 to .70 lbs./A. Abate ULV was compared with conventional applications of abate 4-E in water. When both were applied at the rate of 1 fl. oz./A, no mortality resulted from treatments of either formulation to killifish or grass shrimp. However, the abate ULV treated killifish showed a reduction in feeding and loss of equilibrium.

10. REVIEWER'S EVALUATION: This study, as reported, is only an abstract and, hence, has gross data insufficiencies.

Validation Category: Invalid

Category Rationale: This study is judged to be invalid due to the following:

1. Only an abstract is presented.

2. A detailed description of each organism, including weight, age, etc., is lacking.

3. Detailed description of test procedures, methods and conditions is lacking.

4. In general, all requirements specified in sections 163.70-1 and 163.72-3 of the Guidelines have not been addressed.

Category Repairability: Since certain acceptable test species were used, this study has the potential for being considered for acceptable status subject to other limitations. If the above rationale can be satisfied this study will be reevaluated and may be upgraded.