

US EPA ARCHIVE DOCUMENT

CASE NUMBER NALED PM 119 12/22/81

CHEM 344.1 Naled (1,2-dibromo-2,2-dichloroethyl p

BRANCH EEB HSC 40 TOPIC 51 3543 GUIDELINE 40 CFR 163.72-2

FORMULATION 91 - FORMULATION NOT IDENTIFIED

FIGURE/MASTER ID 00074678 CHEMIST CAI J

Tyler, B.G.; Lunz, R.S.; Pearson, C.; et al. (1967) Product Performance Report: Diconon 14 Concentrate. (Unpublished study received Jul 31, 1967 under unknown agrin. no.; prepared in cooperation with Pearl's Cluff Marine Laboratory, submitted by Chevron Chemical Co., Richmond, Calif.; OOL:125644-A)

SUBST. CLASS = 8.

OTHER SUBJECT DESCRIPTORS
SEC: EEB -4 - 51 3547

DIRECT HWY TIME = (MH) START-DATE END DATE

REVIEWED BY: *Kyle Borchert*
TITLE: *Wildlife B24311*
DIG: *HRD-EEB*
LOC/TEL: *CM2-1121 / 557-1121*

SIGNATURE: *Kyle Borchert* DATE: *2/14/82*

APPROVED BY:
TITLE:
DIG:
LOC/TEL:

SIGNATURE: DATE:

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DATA EVALUATION RECORD

1. Chemical: Naled
2. Formulation: Dibrom 14
3. Citation: Tyler, B.H., R.G. Lunz et. al. 1967. Product performance report: Dibrom 14 concentrate. (Unpubl. study received July 31, 1967 under unknown administration No.; prepared in cooperation with Bear's Bluff Marine Laboratory, submitted by Chevron Chemical Co., Richmond, Calif.; CDL: 128644-A). I.D.# 00074678
4. Reviewed by: Kyle Barbehenn, Wildlife Biologist
Ecological Effects Branch
Hazard Evaluation Division (TS-769)
5. Date Reviewed: September 28, 1982
6. Test type: Aquatic Field Study
7. Reported Results: Dibrom ULV aerial application and ground fogging in tidal salt marshes was not toxic to shrimp, crabs or killifish.
8. Reviewer's Conclusion: Information provided does not permit one to fully evaluate this study. This study does not fulfill any guideline data requirements for naled.

METHODS/MATERIALS

A. Test Procedures

Test Animals: *Penaeus aztecus*, *P. setiferus*, *Palaemonetes ugio* (shrimp), killifish (*Fundulus heteroclitus*), and Blue Crab (*Callinectes sapidus*)

Test Location: Bear's Bluff Marine Laboratory, Wadmalaw Island, S.C.

Procedure: Shrimp (sub-adults, post larval and adults), Killifish, and Blue Crab (juveniles) were treated with DIBROM 14 Concentrate applied ULV by air and by ground fog. Rates for ULV were 1 and 2 fl. oz./A and the fogging rate was 1 ft. oz./gal. diesel oil. Tests were made at high and low tide with test animals kept in the test area for 1 hour after treatment. They were then returned and held in laboratory ponds for observations. All specimens were handled 4 times during the test. Mortalities were determined by Abbott's Formula.

Application Dates: 3-28-67, 3-29-67, 4-13-67.

Statistical Analysis: None

Discussion/Results: No treatment related mortality was observed. Authors concluded that DIBROM ULV aerial applications or ground fogging applications in tidal salt marsh breeding areas are not toxic to juvenile white shrimp, post larval brown shrimp, hard back shrimp adults, killifish, or blue crab. Of 228 animals exposed to DIBROM 14 spray, only 12 (5.37%) were lost, whereas 9 of 89 control specimens (10%) were lost over the observation period.

Reviewer's Evaluations:

A. Procedure. Method of exposing organisms was not indicated, precluding further evaluation. Limiting exposure to one hour after treatment reduces the validity of the test.

B. Statistical Analysis: N/A

C. Discussion/Results: The usefulness of these observations for risk assessment cannot be determined.

Conclusions:

Validation Category: Invalid

Category Rationale: Description of test methods is inadequate

Category Repairability: This test could be upgraded to Supplemental if further details were provided.