9/23/82

DATA EVALUATION RECORD PAGE 1 OF

NALED RM 11 12/22/81

Naled (1,2-dibromo-2,2-dichloroethyl ...

MISC 4 TOPIC 51 3543 GUIDELINE 40 CFR 163.72-6

15 - S ... CONC TRATE

MASTER ID 00074823 CONTENT CAT 1

Kelley, J.J., Jr. (1969) A Preliminary Field Test on the Effects of Dibrom 14 Concentrate (Naled) on Three Estuarine Species. (Unpublished study received Feb 25, 1971 under 239-1721; prepared by Citadel Military College of South Carolina, Biology Dept., submitted by Chevron Chemical Co., Richmond, Calif.; CDL: 1373-A)

SUBST. CLASS = S.

OTHER SUBJECT DESCRIPTORS
SEC: EEB -4 - 51 3547

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

REVIEWED BY: Kyle Barbehenn
TITLE: Wildlife Biologist
ORG: HED-EEB
LOC/TEL: CM2-1121/557-1121

SIGNATURE: [signature] DATE: 23 Sept 82

APPROVED BY:
TITLE:
ORG:
LOC/TEL:

SIGNATURE: DATE:

BEST AVAILABLE COPY

DATA EVALUATION RECORD

1. Chemical: Naled

2. Formulation: Dibrom 14

3. Citation: ID#00074823. Kelley, B.J., Jr. (1969) A Preliminary Field Test on the Effects of Dibrom 14 Concentrate (Naled) on three estuarine Species. (Unpublished study received February 25, 1970 under 239-1721; prepared by Citadel Military College of South Carolina, Biology Dept., submitted by Chevron Chemical Co., Richmond, CA., DCL: 001373-A)

4. Reviewed by: Kyle Barbehenn, Wildlife Biologist
Ecological Effects Branch
Hazard Evaluation Division (TS-769)

5. Date Reviewed: September 23, 1982

6. Test type: Sumulated Aquatic Field Test

7. Reported Results:

Aerial application of Dibrom 14 at 4 oz and 6 oz/acre to a tidal creek caused no measureable mortality to juvenile blue crabs and killifish that were held in cages in the creek during and for 1 hour after treatment.

8. Reviewer's Conclusions:

This study is valid for the reported conditions. However, the designed limits to exposure do not permit one to evaluate risks in the field from longer exposure and in shallow areas. This study does not fulfill any data requirements for naled.

Materials/Methods

A. Test Procedures

Dibrom 14 was applied aerially at the rate of 4 oz and 6 oz/acre to a tidal creek. Concentration of pesticide in the water was not measured but an observer verified that the spray hit the target areas. Wire mesh cages containing sub-adult white shrimp, juvenile blue crabs and killifish were anchored in 5 feet of water before treatment and in a control area and removed one hour later. Test organisms were transferred to holding tanks for observation periods of 3 hr, 1, 2, and 7 days. Salinity and temperature was recorded in the field and in the tanks.

Statistical Analysis

None.

Discussion/Results

High mortality occurred among both the control and treated shrimp. Low mortality among crabs and killifish in both treated and control organisms indicated no treatment effects.

Reviewer's Evaluation

Procedure. Removal of test organisms one hour after treatment does not permit any conclusions about exposure that would be anticipated under normal conditions. Archoring cages in 5 feet of water does not permit conclusions about effects in shallow water.

Discussion/Results

High mortality among control shrimp prevents any conclusion regarding treatment effects. Under the conditions of the study, results on crabs and killifish are valid but they do not permit an adequate assessment of risk under normal conditions.

Conclusions

1. Validation Category: Supplemental

2. Rationale: Limited ability to extrapolate

3. Repairability: None