12-16-82

CASE GS0097 CHLOROTHALONIL PM 400 ~~08703782~~

CHEM 081901 Chlorothalonil (tetrachloroisophthalon

BRANCH EEB DISC 40 TOPIC 05100542

FORMULATION 00 = ACTIVE INGREDIENT

FICHE/MASTER ID 00030388 CONTENT CAT 01

Shults, S.K.; Killeen, J.C., Jr.; Heilman, R.D. (1979) Chlorothalonil (Technical) Eight-Day Dietary (LC=50) Study in Bobwhite Quail. (Unpublished study received Feb 19, 1980 under 677-313; prepared in cooperation with Wildlife International, Ltd., submitted by Diamond Shamrock Agricultural Chemicals, Cleveland Ohio; CDL:099247-A)

SUBST. CLASS = S.

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

REVIEWED BY: Daniel Rieder
TITLE: Wildlife Biologist
ORG: EEB/HED
LOC/TEL: 557-7666 12/16/82

SIGNATURE: Daniel Rieder DATE:

APPROVED BY:
TITLE:
ORG:
LOC/TEL:

SIGNATURE: DATE:

DATA EVALUATION SHEET

1. CHEMICAL: Bravo 500

2. FORMULATION: Chlorothalonil

3. CITATION

Fink, Robert, 1979. Chlorothalonil Eight-day Dietary (LC_{50}) Study in Bobwhite Quail. An unpublished report prepared by Wildlife International Ltd. for Diamond Shamrock Chemical Company. (Accession Number 099247).

4. REVIEWED BY: Daniel Rieder
Wildlife Biologist
EEB/HED

5. DATE REVIEWED: March 5, 1980

6. TEST TYPE: Eight-day Dietary Acute Toxicity

A. Test Species: Bobwhite Quail

B. Test Material: Chlorothalonil (96%)

7. REPORTED RESULTS

There were no mortalities at any dosage level. There was a slight reduction in body weight at the 10,000 ppm dose level, the highest concentration used.

8. REVIEWERS CONCLUSION

A. Validation Category: Core

B. Discussion

The acute eight-day dietary LC_{50} of technical chlorothalonil was estimated to be greater than 10,000 ppm. Therefore it is considered practically non-toxic to bobwhite quail. This study was scientifically conducted and meets the requirements in the EPA proposed guidelines.

METHODS/RESULTS

A. Test Procedure

Protocol generally followed EPA proposed guidelines of July 10, 1978. 14-day old bobwhite chicks were used as test organisms. Fifty birds (five groups of ten birds each) were assigned as controls. Two sets of ten birds each were used at each concentration level. Five concentrations were used, they were: 1000, 1780, 3160, 5620, and 10,000 ppm. A separate group with the same number of birds were subjected to the laboratory standard (dieldrin) simultaneously. Some minor discrepancies include failure to report:

1. test dates;
2. body weights of birds before and after testing;
3. housing conditions, such as humidity and photoperiod; and
4. total food consumption

B. Statistical Analysis

No LC_{50} was calculated as no deaths occurred at any concentration level.

C. Discussion/Results

No deaths occurred at the highest (10,000 ppm) concentration level, so it was estimated that the LC_{50} for technical chlorothalonil would be greater than 10,000 ppm. The necropsy at the end of the test showed a slight pale mottling of the liver in 2 of the birds at the 10,000 ppm concentration level.

REVIEWERS EVALUATION

A. Test Procedure

The discrepancies mentioned above are not considered significant, and the test procedure is considered acceptable.

B. Statistical Analysis

No deaths occurred, so no LC_{50} was calculated. The LC_{50} for chlorothalonil in bobwhite chicks in an eight-day dietary acute toxicity test would probably be greater than 10,000 ppm.

C. Validation

1. Category: Core

2. Rationale

The test procedure essentially corresponds to the proposed EPA guidelines. The reporting deficiencies are within acceptable limits.

3. Repairable: N/A