3-19-82

(TDR03B) DATA EVALUATION RECORD PAGE 1 OF 3

CASE GS0043 METHAMIDOPHOS PM ~~04/16/81~~

CHEM 101201 Methamidophos (O,S-dimethyl phosphoram

BRANCH EEB DISC 40 TOPIC 05050542

FORMULATION 00 = ACTIVE INGREDIENT

FICHE/MASTER ID 00041313 CONTENT CAT 01

Nelson, D.L.; Burke, M.A.; Burnett, R.M. (1979) Acute Oral Toxicity of Monitor-(R)- Technical to Bobwhite Quail: Report No. 67993, (Unpublished study received Mar 19, 1980 under 3125-280; submitted by Mobay Chemical Corp., Kansas City, Mo.; CDL:242410-E)

SUBST. CLASS = S.

DIRECT RVW TIME = 1 hour (MH) START-DATE 2/1/82 END DATE 2/1/82

REVIEWED BY: Douglas J. Urban
TITLE: Fish and WIldlife Biologist
ORG: Ecological Effects Branch, HED, OPP
LOC/TEL: CS4; 557-5632
SIGNATURE: Douglas J Urban DATE: 3/19/82

APPROVED BY:
TITLE:
ORG:
LOC/TEL:
SIGNATURE: DATE:

Reviewers Conclusion:

A. Validation Category: Core

B. Discussion: This study is scientifically sound and with LD50's of 10.1 mg/kg and 11.0 mg/kg for males and females, respectively, methamidopho is highly toxic to bobwhite quail. THe study does fulfill the requirement for an LD50 to an upland game bird.

1

101201

DATA EVALUATION SHEET

1. CHEMICAL: Monitor

2. FORMULATION: O,S-dimethyl phosphoramidothioate ... 75%

Shaughnessy Number: 101201

3. CITATION: Nelson, D.L. 1979. Acute Oral Toxicity of Monitor® Technical to Bobwhite Quail. Received 12/10/80. An unpublished report prepared by Mobay Chemical Corporation of Chevron Chemical Company. Report No. 67993

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

5. DATE REVIEWED: 1/8/81

6. TEST TYPE: Avian acute oral

A. Test Species: Bobwhite Quail

B. Test Material: Monitor Technical (75% a.i.)

7. REPORTED RESULTS:

Male and Female birds were tested separately.
The LD50 for male bobwhite quail was 10.1 (7.9-13.1) mg/kg.
The LD50 for Female bobwhite quail was 11.0 (8.5-14) mg/kg.

8. REVIEWERS CONCLUSION:

A. Validation Category: Core

B. Discussion: The test was scientifically conducted and meets guideline requirements. It shows that monitor is highly toxic to bobwhite quail. The technical grade of monitor used in the test was 75% active ingredient.

2

REPORTED METHODS AND RESULTS

A. Test Procedure

Twenty 22-week old bobwhite quail were tested at each of 5 test levels (2.2, 4.7, 10.1, 21.8, and 47.1 mg/kg) and a control. The twenty at each level were divided into two groups; ten males and ten females. The procedure was described in excellent detail. The birds weight and food consumption were reported for the 14-day observation period following dosage. The tested material, Monitor Technical was 75% active ingredient.

B. Statistical Analysis

Mortality data were analyzed by the method of Carrol S. Weil, Biometrics, Vol. 8 No. 3, 1952.

C. Results

The results were reported seperately for the two test groups. The LD50 and 95% confidence limits for male bobwhite quail dosed with Monitor was 10.1 (7.9-13.1) mg/kg. For female bobwhite quail it was 11.0 (8.5-14.1) mg/kg. The surviving birds at the 4.7 and 10.1 level lost weight and ate less than the control birds for the first 4 days or so.

REVIEWERS EVALUATION

A. Test Procedure

The reported protocol was acceptable. However, it should be noted that Monitor technical is only 75% active ingredient.

B. Statistics

An independent statistical analysis was performed using the Thompson-Weil method. The results were essentially the same as those reported.

C. Discussion

The tested material is highly toxic to bobwhite quail. This test shows that a dose of monitor will cause a reduction in food consumption. This suggests that monitor makes the birds too sick to eat for sometime after dosage. In this case monitor (technical) is 75% active ingredient.

D. Conclusion

Category: Core