

US EPA ARCHIVE DOCUMENT

10/11/95

DATA EVALUATION RECORD
§ 71-1(A) - AVIAN SINGLE-DOSE LD₅₀ TEST

1. **CHEMICAL:** Mepiquat Chloride **PC Code No.:** 109101
2. **TEST MATERIAL:** Mepiquat Chloride **Purity:** 99 %
3. **CITATION**
- Authors:** Munk, R.
Title: Avian single oral LD₅₀ of mepiquat chloride to the bobwhite quail.
Study Completion Date: July 12, 1993
Laboratory: BASF Aktiengesellschaft, Dept. of Toxicol., Germany
Sponsor: BASF Corporation
Laboratory Report ID: 93/10694
MRID No.: 431507-01
DP Barcode: D201861

4. **REVIEWED BY:** William S. Rabert, Biologist, EEB, EFED

Signature: *William S. Rabert* **Date:** 10/11/95

5. **APPROVED BY:** Harry Craven, Head of Section 4, EEB, EFED

Signature: *Harry T. Craven* **Date:** 10/29/95

6. **STUDY PARAMETERS**

Scientific Name of Test Organism: *Colinus virginianus*
Test Organisms Age/Size: about 5 months old; 172 g
Definitive Study Duration: 14 Days

7. **CONCLUSIONS:**

Results Synopsis

LD₅₀: > 2,000 mg ai/kg **95% C.I.:** N/A
NOEL: 1,000 mg ai/kg **Probit Slope:** N/A

8. **ADEQUACY OF THE STUDY**

A. **Classification:** Core

B. **Rationale:** N/A

C. **Repairability:** N/A

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9. GUIDELINE DEVIATIONS: None

10. SUBMISSION PURPOSE: Reregistration Data Requirement

11. MATERIALS AND METHODS

A. Test Organisms

Guideline Criteria	Reported Information
Species: A wild waterfowl species, preferably the mallard (<i>Anas platyrhynchos</i>), or an upland game bird species, preferably the bobwhite (<i>Colinus virginianus</i>).	Bobwhite Quail <i>Colinus virginianus</i>
Age at beginning of test: At least 16 weeks old.	about 5 months; > 20 weeks old
Supplier	Ursula Wilmering, Germany
Acclimation period: At least 15 days.	14 days

B. Test System

Guideline Criteria	Reported Information
Pen facilities adequate?	Yes
Photoperiod: 10-h light, 14-h dark is recommended.	10 hrs light; 14 hrs dark
Diet was nutritious and appropriate for species?	Yes
Feed withheld at least 15 hours prior to dosing?	Yes

C. Test Design

Guideline Criteria	Reported Information
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Range finding test?	Yes
Definitive Test Nominal concentrations: At least five, in a geometric scale, unless LD ₅₀ > 2000 mg ai/kg.	0, 500, 1,000 and 2,000 mg ai/kg
Controls: Water control or vehicle control (if vehicle is used)	Yes
Number of birds per group: 10 (strongly recommended)	5 males and 5 females/conc.
Vehicle: Distilled water, corn oil, propylene glycol, 1% carboxymethylcellulose, or gum arabic.	Distilled water
Amount of vehicle per body weight: Constant volume/weight % of body weight, not to exceed 1% (1 ml/100 g).	not reported
Observations period: At least 14 days.	14 days

12. REPORTED RESULTS

Guideline Criteria	Reported Information
Quality assurance and GLP compliance statements were included in the report?	Yes
Individual body weights measured at beginning of test, on day 14 and at end of test if extended beyond 14 days?	Yes
Mean feed consumption measured at beginning of test, on day 14, and at end of test if extended beyond 14 days?	Yes
Control Mortality: Not more than 10%	0 %
Raw data included?	Yes

Guideline Criteria	Reported Information
Signs of toxicity (if any) were described?	Yes

A. Mortality

Dosage (mg/kg)	No. of Birds	Cumulative Number of Dead							
		Day of Study							
		1	2	3	4	5	6-8	9-11	12-14
Control	10	0	0	0	0	0	0	0	0
500	10	0	0	0	0	0	0	0	0
1,000	10	0	0	0	0	0	0	0	0
2,000	10	0	0	0	0	0	0	0	1 male

Other Significant Results: Male food consumption levels dropped about 50 percent on Days 10-14. No other symptoms were observed. The dead quail was cannibalized.

B. Reported Statistical Results

Statistical Method: Visual evaluation of data

LD₅₀: > 2,000 mg ai/kg 95% C.I.: N/A

NOEL: 1,000 mg ai/kg Probit Slope: N/A

13. Verification of Statistical Results

Statistical Method: Visual observation

LD₅₀: > 2,000 mg ai/kg 95% C.I.: N/A

NOEL: 1,000 mg ai/kg Probit Slope: N/A

14. REVIEWER'S COMMENTS: None