

12-15-94

MRID No.: 159771

**DATA EVALUATION RECORD**  
**§ 71-1(A) - AVIAN SINGLE-DOSE LD<sub>50</sub> TEST**

1. **CHEMICAL:** Nabam PC Code No.:014503

2. **TEST MATERIAL:** Nabam yellow liquid Purity: 30%

3. **CITATION**

Authors: Beavers, Joann B.  
Title: Nabam: An Acute Oral Toxicity Study with the Bobwhite  
Study Completion Date: February 3, 1986  
Laboratory: Wildlife International, Maryland  
Sponsor: ALCO Chemical Corporation  
Laboratory Report ID: 211-103  
MRID No.: 159771

4. **REVIEWED BY:** Conchi Rodríguez, Biologist EEB,EFED

Signature: *Conchi Rodriguez* Date: 12/15/94

5. **APPROVED BY:** Harry Craven, Supervisory Biologist EEB, EFED

Signature: *Harry T. Craven* Date: 12/15/94

6. **STUDY PARAMETERS**

**Scientific Name of Test Organism:** *Colinus virginianus*  
**Test Organisms Age/Size:** Approximately 21 weeks  
**Definitive Study Duration:** 14 days

7. **CONCLUSIONS:**

**Results Synopsis**

LD<sub>50</sub>: >2250 mg ai/kg  
NOEL: 292 mg ai/kg

8. **ADEQUACY OF THE STUDY**

A. **Classification:** Core

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9. **GUIDELINE DEVIATIONS:** No guideline deviations

10. **SUBMISSION PURPOSE:**

11. **MATERIALS AND METHODS**

**A. Test Organisms**

Guideline Criteria	Reported Information
<b>Species:</b> A wild waterfowl species, preferably the mallard ( <i>Anas platyrhynchos</i> ), or an upland game bird species, preferably the bobwhite ( <i>Colinus virginianus</i> ).	<i>Colinus virginianus</i>
<b>Age at beginning of test:</b> At least 16 weeks old.	Approximately 21 weeks
<b>Supplier</b>	Fritts' Quail Farm, Phillisburg, New Jersey
<b>Acclimation period:</b> At least 15 days.	21 days

**B. Test System**

Guideline Criteria	Reported Information
<b>Pen facilities adequate?</b>	Yes
<b>Photoperiod:</b> 10-h light, 14-h dark is recommended.	8 hours of light
<b>Diet was nutritious and appropriate for species?</b>	Yes
<b>Feed withheld at least 15 hours prior to dosing?</b>	Yes

**C. Test Design**

Guideline Criteria	Reported Information
<b>Range finding test?</b>	Not reported "dosages were established based upon known toxicity data"
<b>Definitive Test</b> <b>Nominal concentrations:</b> At least five, in a geometric scale, unless LD <sub>50</sub> > 2000 mg ai / kg.	292, 486, 810, 1350, and 2250 mg/kg
<b>Controls:</b> Water control or vehicle control (if vehicle is used)	Diluent control used
<b>Number of birds per group:</b> 10 (strongly recommended)	10
<b>Vehicle:</b> Distilled water, corn oil, propylene glycol, 1% carboxymethylcellulose, or gum arabic.	Distilled water
<b>Amount of vehicle per body weight:</b> Constant volume/weight % of body weight, not to exceed 1% (1ml/100g).	0.8%
<b>Observations period:</b> 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
Signs of toxicity (if any) were described?	Yes, sign of toxicity were described.

**Mortality**

Nominal Dosage (mg/kg)	Control	296	486	810	1350	2250
Measured Dosage (mg/kg)	--	--	--	--	--	--
No. dead / no. exposed	0/10	0/10	0/10	0/10	0/10	0/10

**Other Significant Results:** Toxicity signs were the following:

At 292, 486 and 810 mg/kg there were no signs of toxicity.

At 1350 mg/kg: \* regurgitation of one male after dosing  
\* ruffled appearance on one female (day 3)  
\* lethargy and ruffled appearance in one male (day 4 and 6)

At 2250 mg/kg: \* lethargy and ruffled appearance all birds (Day 1 to 7)

At 486 mg/kg and higher there was a weight reduction trend or weight loss during the first 3 days.

At 810, 1350, and 2250 mg/kg there was reduction in feed consumption during the first 3 days.

### Reported Statistical Results

Statistical Method: No Statistical Method Required

LD<sub>50</sub>: > 2250 mg/kg

NOEL: 292 mg/kg based on effects on weight gain at 486 mg/kg

### 13. Verification of Statistical Results

No verification of statistical results is necessary.

14. **REVIEWER'S COMMENTS:** The study is scientifically sound and fulfill the guideline requirements for an Acute Avian Oral study. The LD50 is >2250 mg/kg. The NOEL is 292 mg/kg based on effects on weight gain at 486 mg/kg.