

US EPA ARCHIVE DOCUMENT

MRID No. 438698-02

**DATA EVALUATION RECORD**  
**§ 71-2(A) -- UPLAND GAME BIRD DIETARY LC<sub>50</sub> TEST**

1. **CHEMICAL:** Captan PC Code No.: 081301

2. **TEST MATERIAL:** Captan Technical Purity: 90%

3. **CITATION:**

Authors: B. Hakin, A.J. Johnson, A. Anderson, and I.S. Dawe

Title: Captan: Dietary Toxicity (LC<sub>50</sub>) Study with the Bobwhite Quail

Study Completion Date: November 28, 1990

Laboratory: Huntingdon Research Centre Ltd.,  
Huntingdon, Cambridgeshire, U.K.

Sponsor: Zeneca Inc.

Laboratory Report ID: ISN 230/901123

MRID No.: 438698-02

DP Barcode: Not available.

4. **REVIEWED BY:** Rosemary Graham Mora, M.S., Environmental Scientist, KBN Engineering and Applied Sciences, Inc.

Signature:

*[Handwritten Signature]* for RBM

Date:

4/2/96

**APPROVED BY:** Pim Kosalwat, Ph.D., Senior Scientist, KBN Engineering and Applied Sciences, Inc.

Signature:

*[Handwritten Signature]* P. Kosalwat

Date:

4/2/96

5. **APPROVED BY:**

Signature:

*[Handwritten Signature]* Henry Crain

Date:

6/6/96

6. **STUDY PARAMETERS:**

**Scientific Name of Test Organism:** *Colinus virginianus*

**Age of Test Organisms at Test Initiation:** 11 days old

**Definitive Study Duration:** 8 days

7. **CONCLUSIONS:** This study is scientifically sound and meets the guideline requirements for an acute avian dietary toxicity study using bobwhite quail. The LC<sub>50</sub> was >5200 ppm nominal, which classifies the test material as practically non-toxic to the bobwhite quail. The NOEC was 1300 ppm nominal since no birds at or below this test level demonstrated signs of toxicity during the study.

**Results Synopsis**

LC<sub>50</sub>: >5200 ppm

NOEC: 1300 ppm

95% C.I.: N/A

Probit Slope: N/A



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8. **ADEQUACY OF THE STUDY:**

- A. **Classification:** Core
- B. **Rationale:** Fulfills requirements.
- C. **Repairability:** N/A

9. **GUIDELINE DEVIATIONS:** The brooder temperature was not reported. The guidelines recommend a brooder temperature of 35°C.

10. **SUBMISSION PURPOSE:**

11. **MATERIALS AND METHODS:**

A. **Test Organisms**

Guideline Criteria	Reported Information
<b>Species:</b> An upland game bird species, preferably the bobwhite ( <i>Colinus virginianus</i> ).	<i>Colinus virginianus</i>
<b>Age at beginning of test:</b> 10-14 days old.	11 days old
<b>Supplier</b>	D.R. and R.E. Wise, Monkfield, Bourn, England
<b>Chicks appeared healthy and did not have excessive mortality before the test?</b>	Not reported.
<b>Acclimation period:</b> As long as possible.	10 days

B. **Test System**

Guideline Criteria	Reported Information
<b>Pen size:</b> about 35 x 100 x 24 cm	83 X 52 X 51 cm
<b>Brooder temperature:</b> about 35°C (95°F)	Not reported. A 300-watt infra-red lamp was suspended over each pen to provide additional heat.

Guideline Criteria	Reported Information
<b>Room temperature:</b> 22-27°C (71-81°F)	Minimum: 25 ±1.6°C Maximum: 28 ±1.4°C
<b>Relative humidity:</b> 30-80%	49 ±4%
<b>Adequate ventilation?</b>	Yes
<b>Photoperiod</b> Minimum of 14 h of light.	Continuous light
<b>Diet:</b> A commercial diet for game birds.	Standard HRC chick diet in meal form

### C. Test Design

Guideline Criteria	Reported Information
<b>Range finding test?</b>	None reported.
<b>Definitive Test</b> <b>Nominal concentrations:</b> Four minimum, 5 or 6 strongly recommended, in a geometric scale, unless LC <sub>50</sub> > 5000 ppm.	163, 325, 650, 1300, 2600, and 5200 ppm (not corrected for purity).
<b>Controls:</b> Control group tested with diet containing the maximum amount of vehicle used in treated diets?	Yes. Three control groups were used.
<b>Number of birds per group:</b> 10 (strongly recommended)	10 birds per group
<b>Vehicle:</b> Distilled water, corn oil, propylene glycol, 1% carboxymethyl cellulose, or gum arabic.	None
<b>Vehicle amount (% of diet by weight):</b> Not more than 2%	N/A

Guideline Criteria	Reported Information
<b>Test durations:</b> 5 days with treated feed and at least 3 days observation with "clean" feed.	3 days pretreatment 5 days with treated diet 3 days observation period
<b>No mortality during last 72 hr of observations?</b>	No mortality occurred during the last 72 hours of observation.

**12. REPORTED RESULTS:**

Guideline Criteria	Reported Information
<b>Quality assurance and GLP compliance statements were included in the report?</b>	Yes
<b>Body weights measured at beginning and end of study?</b>	Group mean body weights were recorded 3 days prior to test initiation, at test initiation and Days 5 and 8.
<b>Estimated consumption per pen reported for pretreatment, treatment, and observation periods?</b>	Yes
<b>Control Mortality:</b> Not more than 10%	Only one bird in the second control group died on Day 4.
<b>Raw data included?</b>	Yes
<b>Signs of toxicity (if any) were described?</b>	None

Mortality

Conc. (ppm)		No. of Birds	Cumulative Number of Dead							
Nominal	Mean Measured		Day of Study							
			1	2	3	4	5	6	7	8
Controls	<12	30	0	0	0	1	1	1	1	1
163	159	10	0	0	0	0	0	0	0	0
325	321	10	0	0	0	0	0	0	0	0

