(5)

1/2/85

DATA EVALUATION RECORD

1. CHEMICAL: α-butyl-α-(4-chlorophenyl)-1H-1,2,4-triazole-1-propanenitrile

SHAUGHNESSY NUMBER 128857

2. TEST MATERIAL:

RH-53,866 (Technical), 84.5% a.i.

3. STUDY IDENTIFICATION:

Fletcher, D.W., 1984. Eight-day dietary LC_{50} study with RH-53,866 technical in bobwhite quail. Bio-Life Associates Ltd. Neillsville, Wisconsin. Report #84RC16 EPA Eup Nos. 707-EUP-RNL and 707-EUP-RNU, Acc. No. 072894

4. STUDY TYPE:

Avian dietary LC_{50}

5. REVIEWED BY:

Robert W. Pilsucki
Microbiologist
Ecological Effects Branch/HED

Robert W Pilsucki 1/2/85

6. APPROVED BY:

for Raymond Matheny
Head, Review Section 1

Dennis McLane

7. REPORTED CONCLUSIONS:

The dietary LC_{50} in bobwhite quail was > 5000 ppm.

8. REVIEWER S CONCLUSIONS:

This study is scientifically sound and with an LC_{50} of > 5000 ppm RH-3866 is slightly toxic to bobwhite quail. This study fulfills the requirement for an avian dietary LC_{50}.

9. MATERIALS AND METHODS:

Species: Bobwhite quail

Age of birds: 14 days

Source and rearing history:

Oak Ridge Farms
Gravette, Arkansas

The birds were hatched from eggs at Bio-Life Associates laboratory. They were then quarantined for 13 days and acclimatized.

Selection of test birds:

Birds were "arbitrarily" selected and assigned to test groups (no reference was made as to randomization procedure). Groups were not balanced for sex.

Housing conditions:

Temperature: 91-104°F (32.7-40°C)
Humidity: 24-30%
Lighting: Constant illumination
Pen size: 45.7 cm x 61 cm x 45.7 cm wire pens

Weight gain and food consumption:

See attached tables.

Diet:

During the test, the birds were fed Purina Gamebird StarTeena (ingredient listing not supplied). Test material residue measurements were made after mixing and are as follows:

Calculated Dose (ppm)	Actual Level Found (ppm)	Actual Calculated
312	246	0.79
625	641	1.03
1250	1150	0.92
2500	3000	1.20
5000	4530	0.91

The diet was mixed 68 hours prior to testing.

Concurrent controls and diluent:

Concurrent vehicle control groups, each containing 10 birds, were run with the test doses. Diluent was mixed with the feed to yield a concentration equal to that in the test feed. Controls showed no mortality. The diluent used was acetone.

Number of birds/concentration: 10

Test duration:

5 days on treatment
3 days observation

Concentrations - mortalities:

Conc. (ppm)	Number Exposed	Number Dead	Percent Mortality
4530	10	1	10
3000	10	2	20
1150	10	0	0
641	10	0	0
246	10	0	0

Toxic Symptoms:

Anorexia and lethargy were observed in birds in the 2500 and 5000 ppm groups, starting at day 2 and ending at day 4. After day 4, all birds appeared normal.

Necropsy:

All dead birds and 19 surviving birds (10 control and 9 from the 5000 ppm group) showed no pathological findings.

10. STATISTICAL ANALYSIS:

No statistical analysis was performed.

11. DISCUSSION: There was no Discussion section in this study.

12. REVIEWER S EVALUATION:

Test procedures: The test procedures generally follow EPA s guidelines for an avian dietary LC_{50} using bobwhite quail.

Statistical analysis: Because no dose level produced 50% or greater mortality, a statistically meaningful LC_{50} could not be obtained.

Discussion: The conclusions reached generally are in agreement with those attained by EEB. The results show that RH-3866 is slightly toxic to bobwhite quail under the conditions tested.

13. Conclusions:

Category: Core

Rationale: This study follows EPA s guidelines for an avian dietary LC_{50}.

Repairability: N/A

PILSUCKI RH 3866 AVIAN DIETARY LC50

****

CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
4530	10	1	10	1.07422
3000	10	2	20	5.46875
1150	10	0	0	.0976563
641	10	0	0	.0976563
246	10	0	0	.0976563

THE BINOMIAL TEST SHOWS THAT 1150 AND +INFINITY CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 0

THE MOVING AVERAGE METHOD CANNOT BE USED WITH THIS DATA SET BECAUSE NO SPAN WHICH PRODUCES MOVING AVERAGE ANGLES THAT BRACKET 45 DEGREES ALSO USES TWO PERCENT DEAD BETWEEN 0 AND 100 PERCENT.

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
13	1.75963	1	.623123

SLOPE = 2.06318

95 PERCENT CONFIDENCE LIMITS =-.673652 AND 4.80002

LC50 = 12567

95 PERCENT CONFIDENCE LIMITS = 4926.6 AND +INFINITY

LC10 = 3045.63

95 PERCENT CONFIDENCE LIMITS = 0 AND +INFINITY

****

MYCLOBUTANIL 128857

Page_____ is not included in this copy.

Pages 6 through 8 are not included.

The material not included contains the following type of information:

____ Identity of product inert ingredients.

____ Identity of product impurities.

____ Description of the product manufacturing process.

____ Description of quality control procedures.

____ Identity of the source of product ingredients.

____ Sales or other commercial/financial information.

____ A draft product label.

____ The product confidential statement of formula.

____ Information about a pending registration action.

X FIFRA registration data.

____ The document is a duplicate of page(s) _____.

____ The document is not responsive to the request.

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.