2007-0569-0006

DATA EVALUATION RECORD

1. Chemical: Farnesol SN: 128910

2. Test Material: 98% ai Technical

3. Study/Action Type: Acute avian single-dose LD_{50}

4. Study ID: Fletcher, D.W. Acute Oral LD_{50} Study in Mallard Ducks with Farnesol Technical (1986) Bio Life Associates, BLAL No. 86DD35. Study Sponsor: Fermone Chemical Co. Study Location: Neillsville, WI. EPA Accession No. 264426.

5. Reviewed by: Robert W. Pilsucki
Microbiologist
EEB/HED
Signature: Robert W. Pilsucki
Date: 1/8/87

6. Approved by: Raymond W. Matheny
Head, Section 1
EEB/HED
Signature: Raymond W. Matheny
Date: 1/8/87

7. Conclusions:

This study is classified as core. The LD_{50} for mallard ducks is greater than 2150 mg/kg.

8. Recommendations:

None.

9. Background: N/A.

10. Discussion of Individual Studies or Tests: N/A.

11. Materials and Methods:

Species: Mallard duck

Ages: 21 weeks

Source and pretest history: Whistling Wings, Inc.
Hanover, IL

The birds selected for testing had been observed for 27 days while being acclimated to laboratory conditions. The birds were examined for suitability for testing.

Selection of test birds:

The test birds were leg-banded and then were randomly distributed into groups of 10 birds, balanced for sex.

Dosing:

The dosing was performed using a disposable syringe.

Vehicle:

The vehicle used was table-grade corn oil.

Housing conditions:

Temperature:	47 °F - 94 °F
Humidity:	65 - 88%
Photoperiod:	8 hr light/16 hr dark
Pen size:	121.9 cm x 121.9 cm x 121.9 cm

Controls:

A vehicle control group was performed concurrently with the test groups.

Duration of Study: 21 days.

Food Withholding: 21 hours.

Food consumption and body weights:

See attached tables

Observations:

The birds were observed daily for adverse clinical signs.

2

Necropsies:

Two male and two female birds from each group were necropsied at the end of the study.

12. Reported Results:

Farnesol: Mallard Duck

Concentration (mg/kg)	Number Exposed	Number Dead	Percent Mortality
0	10	0	0
1470	10	0	0
2150	10	0	0

The author reported that no behavioral changes or toxic signs were observed. Gross pathological examination revealed no abnormalities.

13. Study Author's Conclusions/Quality Assurance Measures:

The author drew no conclusions about the study.

The author stated that the study was reviewed by BLAL's Quality Assurance Unit.

14. Reviewer's Discussion and Interpretation of Study:

a. Test Procedure: This study follows the procedures outlined in EPA's Pesticide Assessment Guidelines: Subdivision E.

b. Statistical Analysis: There was no statistical analysis performed on the mortality data. These data are not amenable to statistical analysis.

Although there were no statistical differences among the groups with respect to weight gain, the high dose group gained less weight than either the low dose group or controls.

c. Discussion/Results: It appears that technical Farnesol is not acutely toxic to Mallard ducks. The high dose group showed a lower weight gain than either the low dose group or controls. This lack of weight gain cannot be explained by lowered food consumption since both treated groups consumed approximately the same amount of food. This anorexia, in the absence of other adverse clinical data, is difficult to interpret but does not indicate significant toxicity.

d. Adequacy of the Study:

1. Category: Core.

2. Rationale: This study followed EPA's Pesticide Assessment Guidelines: Subdivision E.

3. Repairability: N/A.