

US EPA ARCHIVE DOCUMENT

DATA EVALUATION RECORD

Shaunessy Number: 128857

7/28/87

1. Chemical: Rally
2. Test Material: 91.9% ai technical grade
3. Study Type: One-generation reproductive test  
Species Tested: Mallard ducks (Anas platyrhynchos)

4. Study ID: Breslin, J.C., 1986, RH-3866 Technical: A One-generation Reproductive Study with the Mallard (Anas platyrhynchos). Unpublished, sponsored by Rohm and Haas Company. Performed by Wildlife International; Project No. 129-125; ACC. No. 265744.

5. Reviewed By:

Daniel D. Rieder  
Wildlife Biologist  
EEB/HED

Signature: Daniel Rieder 7-28-87  
Date: 7-28-87

6. Approved By:

Allen W. Vaughan  
Acting Head-Section II  
EEB/HED

Signature: Allen W. Vaughan  
Date: 7-28-87

7. Conclusions: This study is scientifically sound and indicates that dietary exposure of up to 60 ppm of Rally did not have an observable adverse effect on mallard duck reproduction. This test fulfills the immediate data requirement provided chronic dietary exposure levels are not expected to exceed 60 ppm. If chronic dietary exposure levels are expected to exceed 60 ppm, additional reproductive testing at higher concentrations may be required.

8. Recommendations: This test does not need to be reconducted at this time, but may if future proposed uses would result in chronic exposure levels of > 60 ppm.

9. Background: This study was conducted to fulfill registration requirements.

10. Discussion of Individual Test: N/A

11. Materials and Methods

The one-generation test was conducted using RH-3866 technical. The test organisms, mallards, were 23 weeks old, approaching their first breeding season. Test levels were 6 ppm and 60 ppm, adjusted for percent purity (91.9%). An untreated control group was also tested. The adult mallards were observed daily for mortality, abnormal behavior and signs of toxicity. All birds found dead were necropsied. In addition, necropsies were performed on five males and five females from the control and 60 ppm test level groups at the termination of the adult portion of the study.

For the first 8 weeks of the test, the birds were held under a photoperiod of 8 hours of light per day. The photoperiod was increased to 17 hours of light per day during Week 9 to induce egg laying. Eggs were collected daily and set weekly for incubation. The first eggs were set during Week 12. Weekly throughout the laying period, eggs were collected from every other pen and measured for egg shell thickness. In addition, effects upon egg production and quality and hatchling health and survival also were examined.

See attachment 1 for detailed description of methods.

12. Reported Results:

Dietary concentrations of RH-3866 technical at 6 or 60 ppm did not result in mortality or overt signs of toxicity during the 19 week exposure study. There were no apparent treatment-related effects upon body weight or feed consumption among adults at either of the concentrations tested. Dietary concentrations of RH-3866 technical at 6 or 60 ppm active ingredient did not result in treatment-related effects upon any reproductive parameter measured. The mallard no-observed-effect concentration for HR3866 technical in this study was 60 ppm, the highest concentration tested.

See attachment 2 for a discussion of results.

13. Study Author's Conclusions/Q.A. Measures:

See 12 above.

14. Reviewer's Discussion and Interpretation of the Study

A. Test Procedures: The test was conducted in an acceptable manner.

B. Statistical Analysis: Based on the analysis of variance computations, these data show no statistical difference between control and the highest test level of 60 ppm.

C. Discussion/Results:

The test shows that, statistically the following reproductive parameters were not affected by up to 60 ppm Rally when compared to a concurrent control.

- I. Adult body weight and survival
- II. Adult feed consumption
- III. Eggs laid
- IV. Eggs cracked
- V. Viable embryos of eggs set
- VI. Live 3-week embryos
- VII. Hatchlings
- VIII. 14-day old survivors
- IX. Offspring body weight and survival
- X. Egg shell thickenss

D. Adequacy of Study:

This study is scientifically sound and fulfills the immediate requirement for an avian reproductive study. The maximum expected residues of the presently proposed use on terrestrial food items is 60 ppm. If future proposed uses would be expected to result in chronic exposure levels on avian food items of greater than 60 ppm, this would not be adequate. Since it is not considered unreasonable to assume that future proposed uses may result in residues > 60 ppm, this test is categorized as supplemental.

Category: Supplemental

15. Completion of One-Liner: One-liner completed

16. CBI Appendix: All attachments are considered to be CBI.

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Pages 4 through 19 are not included.

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- 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.
  - FIFRA registration data.
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