5-14-85 EEB

DATA EVALUATION RECORD

1. Chemical: Monoammonium-2-amino-4-(hydroxy methyl) phosphinyl butanate

2. Test Material: HOE 39866 tech.; 95.3% ai.

3. Study Type: Avian Dietary LC_{50}- 8-day

   Species tested: Mallard duck, *Anas platyrhynchos*

4. Study ID: Ebert and Weigand. 1984. HOE 039866. Active Ingredient Technical. 8-day Dietary LC_{50} Test in the Mallard (*Anas platyrhynchos*). Performed by Hoechst AG, Frankfurt, Germany; submitted by American Hoechst, Somerville, NJ. Accession No. 256761.

5. Reviewed By: John J. Bascietto
   Wildlife Biologist
   EEB/HED
   Signature: John J. Bascietto
   Date: 5/14/85

6. Approved By: Dave Coppage
   Supervisory Biologist
   EEB/HED
   Signature: Dave Coppage
   Date: 5/14/85

7. Conclusions

   The study is scientifically sound. With an LC_{50} > 5000 ppm, the technical ai. HOE 39866 is considered "practically nontoxic"" to mallard ducks. The study fulfills the requirements of the Pesticide Assessment Guidelines, Subdivision E.

8. Recommendations:

   N/A

9. Background:

The study was submitted to support an EUP for soybeans, noncrop, groundskeeping and nonbearing tree and vine crops.

10. Discussion of Individual Studies:

N/A

11. Materials and Methods:

A. Test animals:

Mallard duck chicks (Anas platyrhynchos) 13 days of age at initiation of treatment; obtained from Geflugelfarm Bernhard Franzsander, Falltorstr. 21, Fed. Rep. Germany. Mean weight (initial) $\bar{x}$ = 143g, n = 60.

Test System:

Housed (in groups of 10) in rearing and maintenance batteries 81 cm long x 78 cm wide x 2 cm high. Average temperature 24 to 26 °C; RH = 40 to 60 percent; 16 hr light/8 hr dark. Ducks were given special chick starter ration. Food and water were available ad libitum.

B. Dose:

Experimental diets with HOE 39866. "Clean" diets with no test material. Controls were fed "clean" diets throughout. Experimentals were fed treated diets for 5 days followed by "clean" diet for 3 additional days.

C. Design:

Controls - 10 birds - 0 ppm. Treatments - 10 birds per dose level mg/kg (ppm) - 312.5/625/1250/2500/5000.

D. Statistics:

N/A

12. Reported Results:

Mortality

Dose (mg/kg)	No. Dead by Day 8	% Dead
0	1 (day 5 - day 6)	10
312.5	0	0
625	0	0
1250	0	0
2500	0	0
5000	0	0

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Except the dead control and one animal at 5000 ppm which both had livers which were "noticeably lighter in places," there were no macroscopically visible abnormalities.

No effects on food consumption and weight gain compared to controls (within normal - variability).

In 2500 and 5000 ppm groups - sporadic passivity, disequilibrium and standing on hocks (days 3 to 7).

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

No indications of "toxic effect" after dietary administration LC_{50} > 5000 ppm. "In the 2500 and 5000 ppm dose groups passivity, disequilibrium and standing on hocks occurred sporadically from days 3 to 7."

Control mortality of 10% was "spontaneous." No treatment group mortality up to 5000 ppm.

Q.A. - (p. 4) - Study author states that the study was conducted according to EPA Pesticide Assessment Guidelines, Subdivision E (1982) and "OECD Principles of Good Laboratory Practice" Annnex 2 - Guidelines for Testing Chemicals, (OECD, 1981).

(p. 21) - 3 Q.A. inspections were reported to have been performed - signed by: Apoth. S. J. Harston.

14. Reviewers Discussion and Interpretation of the Study:

A. Test Procedures:

In accordance with the EPA Pesticide Assessment Guidelines. No deviations.

B. Statistical Analysis:

None necessary - no mortality.

C. Discussion/Results:

No mortality in treatment groups up to 5000 ppm. Ten percent spontaneous control mortality is acceptable under Guidelines.

The test material is considered "practically nontoxic" to mallard ducks.

A chemical analysis of the diets indicated that there was no degragation of ai. The diets actually contained more ai than indicated by the nominal concentrations.

D. Adequacy of Study:

1. Category: Core

2. Rationale: Guidelines study.

3. Repair: N/A

15. Completion of One-Liner for Study:

May 1, 1985

16. CBI Appendix:

N/A