

US EPA ARCHIVE DOCUMENT

MRID No.: 433129-02

DATA EVALUATION RECORD  
WATERFOWL DIETARY LC<sub>50</sub> TEST  
GUIDELINE 71-2(B)

1. **CHEMICAL:** Common name: Algaesil, MRID No.: 433129-02
2. **TEST MATERIAL:** Algaesil, Wildlife # 2652, Purity: 0.8% (colloidal silver as elemental)
3. **CITATION:** Campbell, Susan M. & Beavers, Joann B.  
     Laboratory: Wildlife International Ltd.  
     Sponsor: Mason Chemicals  
     Laboratory Report ID: 371-101  
     Any Other Study ID: MRID No. 433129-02
4. **REVIEWED BY:**  
     Curtis E. Laird  
     Biologist  
     EEB/EFED  
     US EPA  
     Signature: *Curtis E. Laird*  
     Date: *5-3-95*
5. **APPROVED BY:**  
     Norman J. Cook  
     Head, Section 2  
     EEB/EFED  
     US EPA  
     Signature: *Norman J. Cook*  
     Date: *05.03.95*
6. **CONCLUSION:** This study indicates algaesil is practically nontoxic to mallard duckling with an LC<sub>50</sub> > 5620 ppm. This study does fulfill the guideline requirements for an avian dietary LC<sub>50</sub> study for a formulated product.
7. **ADEQUACY OF THE STUDY:** Core for a formulated product.
8. **RATIONAL FOR CLASSIFICATION:** This study was conducted with a formulated product.

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9. MATERIALS AND METHODS:A. Test Organisms:

Guideline Criteria	Reported Information
<b>Species:</b> A wild waterfowl species, preferably the mallard ( <i>Anas platyrhynchos</i> ).	mallard duckling
<b>Age at beginning of test:</b> 5-10 days old (preferably 5).	10 days old
<b>Supplier</b>	Whistling Wings, Hanover, Illinois
<b>Acclimation period</b>	8 days

Comments: N/A

B. Test System:

Guideline Criteria	Reported Information
<b>Pen size:</b> about 70 x 100 x 24 cm	72 x 90 x 25.5 cm
<b>Brooder temperature:</b> about 35°C (95°F)	31 ± 1°C
<b>Room temperature:</b> 22-27°C (71-81°F)	26.6 ± 1.2°C
<b>Relative humidity:</b> 30-80%	78% ± 12%
<b>Adequate ventilation?</b>	Not Reported
<b>Photoperiod</b> Minimum of 14 h of light.	16 hours light and 8 hours darkness
<b>Diet:</b> A commercial waterfowl feed.	Wildlife International bird starter

Comments:

none

C. Test Design:

Guideline Criteria	Reported Information
<b>Range finding test?</b>	Not 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.	Yes, 5 concentrations: 562, 1000, 1780, 3160, and 5620 ppm



1000										0
1780										0
3160										0
5620										0

Other Significant Results: On day five, there was a slight reduction in body weight at 3160 ppm and 5620 ppm when compared to control.

Statistical Results:

Statistical Method: Stephan's probit analysis was intended but due to lack of mortality no calculations was necessary. LC<sub>50</sub> value was determined by visual inspection.

LC<sub>50</sub>: >5620 ppm                      95% C.I.: N/A

NOEC: 1780 ppm                      Probit Slope: N/A

Comments: none

11. Verification of Statistical Results:

Statistical Method:

LC<sub>50</sub>: >5620 ppm                      95% C.I.: N/A

NOEC: 1780 ppm                      Probit Slope: N/A

Adjusted for active ingredient: *Optional if % AI is over 80.*

LC<sub>50</sub>: > 44.96 ppm AI                      95% C.I.: N/A

NOEC: 14.24 ppm AI

12. GUIDELINE DEVIATIONS:

1.

2.

13. COMPLETION OF ONE-LINER FOR STUDY: Yes 8-9-94