

US EPA ARCHIVE DOCUMENT

DATA EVALUATION RECORD

1. Chemical: Metalaxyl (Shaughnessy #113501)
2. Formulation: Ridomil Tech. (95.1% a.i.)
3. Citation: U.S.E.P.A. 1979. Biological report of analysis-static jar test #2414. OPP/BFSD/CBIB (Beltsville). lp. [within Accession #244183].
4. Reviewed by: James D. Felkel  
Wildlife Biologist  
Ecological Effects Branch, HED
5. Date Reviewed: 4/7/81
6. Test Type: 96-hr fish LC<sub>50</sub>
  - A. Test Species: Rainbow trout  
(Salmo gairdneri)
7. Reported Results: 96-hr. LC<sub>50</sub> is 132 ppm (95% confidence interval 103.05 - 169.08 ppm).
8. Reviewer's Conclusions: This study appears to be scientifically sound and to satisfy the guidelines for this test material and species. The above LC<sub>50</sub> indicates that the active ingredient is "practically non-toxic" to rainbow trout.

### Materials/Methods

The test material was described as a brown powder, sample #MB576. The trout were obtained from the Wytheville National Fish Hatchery. Acetone was used as a diluent. A control and five (5) concentrations (24, 40, 65, 108, and 180 ppm) were tested. Method #TSD 1.206 was followed. Ten fish were used per concentration. Fish had an average weight of 1.680 grams and the loading rate was 0.56 g/l.

### Results

Mortality in the test concentrations at 96 hours is shown in the appended table (reviewer's analysis). There was no control mortality. A 96-hour LC<sub>50</sub> of 132 ppm is reported.

### Reviewer's Evaluation

#### Method's

Methods used were generally consistent with approved protocols.

#### Statistics

The appended table shows the results using Stephan's Program.

#### Results

The binomial test gives an approximate LC<sub>50</sub> of 126.8 for the data provided, closely approximating the submitted value.

#### Conclusions

1. Category: Core
2. Rationale: N/A
3. Repairability: N/A

Ridomil Tech vs. Rainbow Trout; CBIB Test #2414

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| CONC. | NUMBER<br>EXPOSED | NUMBER<br>DEAD | PERCENT<br>DEAD | BINOMIAL<br>PROB. (PERCENT) |
|-------|-------------------|----------------|-----------------|-----------------------------|
| 180   | 10                | 10             | 100             | 9.76563E-2                  |
| 108   | 10                | 2              | 20.             | 5.46875                     |
| 65    | 10                | 0              | 0               | 9.76563E-2                  |
| 40    | 10                | 0              | 0               | 9.76563E-2                  |
| 24    | 10                | 0              | 0               | 9.76563E-2                  |

THE BINOMIAL TEST SHOWS THAT 65 AND 180 CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 126.838

WHEN THERE ARE LESS THAN TWO CONCENTRATIONS AT WHICH THE PERCENT DEAD IS BETWEEN 0 AND 100, NEITHER THE MOVING AVERAGE NOR THE PROBIT METHOD CAN GIVE ANY STATISTICALLY SOUND RESULTS.

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UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

**BIOLOGICAL REPORT OF ANALYSIS**

1. SAMPLE NO.  
MB 576

2. DATE COLLECTED  
N/A

3. REGION  
N/A

**SAMPLE IDENTIFICATION**

4. LOT OR CODE NO(S).  
None

5. EPA REGISTRATION NO.  
None

6. ESTABLISHMENT NO.  
None

7. PRODUCT NAME  
Ridomil Tech

8. PRODUCER NAME AND ADDRESS (Include ZIP code)  
Ciba-Geigy  
Greensboro, North Carolina

9. DEALER NAME AND ADDRESS (Include ZIP code)

|                   |              |              |      |               |
|-------------------|--------------|--------------|------|---------------|
| 10. PHYSICAL FORM | EMULS. CONC. | PRESS. SPRAY | DUST | GRANULAR      |
|                   | WET. POWDER  | AEROSOL      | BAIT | X OTHER BROWN |

11. INGREDIENTS powder  
N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-alamine methyl ester)  
Technical Ridomil 95.1%

*Metaxyl*

**TEST**

12. TYPE OF TEST  
Static jar  
Test #2414

13. TEST ORGANISM(S)  
Rainbow trout (*Salmo gairdneri*)  
Average weight: 1.680 gm.  
Source: Wytheville National Fish

14. METHOD NO. TSD 1.206  
15. DURATION 96 hrs  
16. CONCENTRATION 24-180 ppm  
17. DILUENT Acetone

18. SUMMARY Hatchery  
Information based on total formulation  
96 hr LC50 is 132 ppm (95% confidence interval 103.05 to 169.08 ppm)

19. RESULTS Concentration in ppm (percent mortality given below)

| Time  | Slope | Chi 2 | 180 | 108 | 65 | 40 | 24 | C |
|-------|-------|-------|-----|-----|----|----|----|---|
| 24 hr |       |       | 100 | 0   | 0  | 0  | 0  | 0 |
| 48 hr |       |       | 100 | 0   | 0  | 0  | 0  | 0 |
| 72 hr |       |       | 100 | 0   | 0  | 0  | 0  | 0 |
| 96 hr | 1.327 | 0.08  | 100 | 20  | 0  | 0  | 0  | 0 |

Ten fish per concentration.  
Loading rate fish/water volume 0.56g/l

*ORE*

20. TESTER'S INITS.  
D.N

21. SIGNATURE OF LAB SUPERVISOR  
*John A. Lee*

22. LABORATORY  
Terrestrial & Aquatic Biology

23. DATE  
7/24/79

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