113501

4-7-81
FILE

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). 1p. [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_{50}

A. Test Species: Rainbow trout
(Salmo gairdneri)

7. Reported Results: 96-hr. LC_{50} 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_{50} 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 Nationall 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_{50} 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_{50} 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 EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL 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 powder

11. INGREDIENTS

N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-alamine methyl ester)

Technical Ridomil 95.1%

Metalaxyl

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

18. SUMMARY

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/1

DRE

20. TESTER'S INITS.	21. SIGNATURE OF LAB SUPERVISOR	22. LABORATORY	23. DATE
D.N	John A. Beckman	Terrestrial & Aquatic Biology	7/24/79

EPA Hq Form 8510-14 (10-76)

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