

DATA EVALUATION RECORD

- The testing laboratory demonstrated that the 96hr LC₅₀ of fenarimol to the Rainbow trout is 3.1 ppm, with 95% confidence limits of 2.4-4.1 ppm.

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Testing Laboratory Report

A. Test Procedure

The test procedure generally followed EPA proposed guidelines of July 10, 1978. Some specifics of note include:

<u>Weight of fish</u>	-	0.76 g ave
<u>Number of fish</u>	-	10 per test vessel
<u>Test vessel size</u>	-	20 liter glass vessels containing 15 liters each
<u>Temperature</u>	-	12 + 1°C
<u>Loading Factor</u>	-	0.5 g/l
<u>Dilution water</u>	-	Soft reconstituted deionized water
<u>Treatment levels</u>	-	0.53, 0.88, 1.5, 2.4, and 4.1 ppm plus untreated and acetone controls
<u>Chemical Analysis</u>	-	Actual concentrations of toxicant were determined at the beginning and at the end of the test by GLC.
<u>Test initiation</u>	-	February 5, 1980

B. Statistical Analysis

Mortality was analyzed by the binomial method.

C. Results

<u>Nominal</u>	<u>Concentration</u>		<u>Mortality at 96 hrs</u>
	<u>initial</u>	<u>Final</u>	
4.1 ppm	4.1 ppm	3.8 ppm	100%
2.4	2.5	2.4	0%
1.5	1.5	1.5	10%
0.88	1.1	0.87	0
0.53	0.52	0.48	0
Controls	-	-	0

The author calculated that the 96hr LC₅₀ of the test material to the rainbow trout is 3.1 ppm, with 95% confidence limits of 2.4-4.1 ppm.

Reviewer's Evaluation

A. Test Procedure

The procedure generally complied with the 1978 EPA guidelines,

B. Statistical Analysis

Mortality was analyzed by an the binomial method, the results of which agreed with the findings of the testing laboratory.

C. Results/Discussion

The testing laboratory demonstrated that the 96hr LC₅₀ of fenarimol to the rainbow trout is 3.1 ppm, with 95% confidence limits of 2.4-4.1 ppm.

D. Conclusion

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

STEVE FENARIMOL RAINBOW STATIC ACUTE LC50

CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
4.1	10	10	100	0.09765625
2.4	10	0	0	0.09765625
1.5	10	1	10	1.074219
0.88	10	0	0	0.09765625
0.53	10	0	0	0.09765625

THE BINOMIAL TEST SHOWS THAT 2.4 AND 4.1 CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 3.136877

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.
