DATA EVALUATION RECORD

1. CHEMICAL: Fenarimol

2. FORMULATION: Technical - 97%

3. CITATION: Sousa, J. (1980) The Acute toxicity of compound 56722 to Rainbow Trout in a 96-hour static test; with continuous aeration; received 10/19/81 under 1471-EUP-75; unpublished report prepared by EG & G Bionomics for Lilly Research Laboratories, Greenfield, Indiana (in Acc #070429)

4. REVIEWED BY: Stephen M. Hopkins Plant Physiologist EEB/HED

5. DATE REVIEWED: 12/2/81

6. TEST TYPE: Fish Acute LC50 - Rainbow Trout

7. REPORTED RESULTS:

The testing laboratory demonstrated that the 96hr LC_{50} of fenarimol to the Rainbow trout is is 3.1 ppm, with 95% confidence limits of 2.4-4.1 ppm.

8. REVEIWER'S CONCLUSIONS:

This study is scientifically sound, and meets EPA requirements for a fish acute LC_{50} study using a cold-water fish.



300

Testing Laboratory Report

A. Test Procedure

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

Weight of fish - 0.76 g ave

Number of fish - 10 per test vessel

Test vessel size - 20 liter glass vessels containing

15 liters each

Dilution water - Soft reconstituted deionized water Treatment levels - 0.53, 0.88, 1.5, 2.4, and 4.1 ppm

plus untreated and acetone controls

Chemical Analysis - Actual concentrations of toxicant

were determined at the beginning and at

the end of the test by GLC.

Test initiation - February 5, 1980

B. Statistical Analysis

Mortality was analyzed by the binomial method.

C. Results

Con	centration	Mortality	
Nominal	Measured		at 96 hrs
	initial	Final	
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 LC_{50} 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 LC $_{50}$ of fenarimol to the rainbow trout is 3.1 ppm, with 95% confidence limits of 2.4-4.1 ppm.

D. Conclusion

Category: Core
Rationale: N/A
Repairability: N/A

STEVE FENARIMOL RAINBOW STATIC ACUTE LC50

CONC.	NUMBER	NUMBER	PERCENT	BINOMIAL
	EXPOSED	DEAD	DEAD	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 O AND 100, NEITHER THE MOVING AVERAGE NOR THE PROBLE METHOD CAN GIVE ANY STATISTICALLY SOUND RESULTS.
