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MRID 00147116

DATA EVALUATION RECORD

1. Chemical: Arsenal

2. Test Material: AC 252,925 - isopropylamine salt of AC 243,997
49.68% of AC 252,925 (ai)

3. Study/Action Type: Fish acute toxicity test
Bluegill sunfish (Lepomis macrochirus)

4. Study ID: Cohle, P. ; McAllister, W.
Static Acute Toxicity Report No. 32182. Acute Toxicity of AC 252,925 to Bluegill Sunfish (Lepomis macrochirus). By Analytical Bio-Chemistry Laboratories, Inc. Submitted to American Cyanamid Co. October 25, 1984. EPA Accession No. 258898.

5. Reviewed by: Ann Stavola
Aquatic Biologist
EEB/HED
Signature: Ann Stavola
Date: Mar 31 1986

6. Approved by: Doug Urban
Supervisory Biologist
EEB/HED
Signature: Douglas Urban
Date: 3/31/86

7. Conclusions:

With an LC_{50} > 1000 mg/L, AC 252,925 is practically nontoxic to warmwater fish. This study is scientifically sound. Since EEB reguired testing with this formulation, the study meets our Guidelines requirements.

8. Recommendations: N/A

9. Background:

Testing with the formulated product was requested to see if the presence of isopropylamine affects the toxicity of the active ingredient.

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10. Materials and Methods:

a. Animals:

Species: Bluegill sunfish (Lepomis macrochirus)

Source: Osage Catfisheries, Osage Beach, MO

Size: Mean weight of 0.32 (± 0.13) g
Mean standard length of 24 (± 3.6) mm

b. Dosage: Static acute bioassay - Test compound - AC 252,925, 49.68% ai. The test concentrations added directly to the chambers without any solvent. The test concentrations were 56, 100, 180, 320, 560, and 1000 mg/L plus a control.

c. Design: Test vessels - 5-gallon glass vessels containing 15 liters of soft reconstituted water. Test vessels were kept in a water bath at 22 °C. Ten fish per concentration. Photoperiod was 16L:8D. Procedures were based on those in Methods for Acute Toxicity Tests with Fish, Macroinvertebrates and Amphibians.

d. Statistics: Computerized LC_{50} program by Stephan.

11. Reported Results:

Nominal Conc. (mg/L)	Percent Mortality 24 hr	48 hr	96 hr
Control	0	0	0
56	0	0	0
100	0	0	0
180	0	0	0
320	0	0	0
560	0	0	0
1000	0	0	0

LC_{50} (mg/L)

24 hr > 1000
48 hr > 1000
96 hr > 1000

The D.O. at the beginning of the test was 8.4 mg/L in control and test chambers, and it was 6.1 and 5.9 mg/L in control and test chambers, respectively, at 96 hours.

The pH was 7.4 and 7.5 in control and test chambers, respectively, at 0-hour, and it was 7.1 in control and test chambers at 96 hours.

12. Study Author's Conclusions/QA Measures

96-hr LC_{50} value > 1000 mg/L

"The study was conducted following the intent of the Good Laboratory Practice Regulations, and the final report was reviewed by Analytical Bio-Chemistry Laboratories' Quality Assurance Unit. All original raw data was provided to American Cyanamid Co., with a copy retained at Analytical Bio-Chemistry Laboratories."

13. Reviewer's Evaluation:

a. Test Procedures: The procedures followed those recommended by EPA Guidelines, 1982.

b. Statistical Analysis: None was needed since there were no mortalities.

c. Discussion/Results: A 96-hour LC_{50} value > 1000 mg/L indicates that AC 252,925 is practically nontoxic to bluegills.

d. Adequacy of Study:

1. Classification: Core.

2. Rationale: EEB required testing with the isopropylamine salt of AC 243,997.