

US EPA ARCHIVE DOCUMENT

**DRAFT**

MRID NO: 104057

~~G-EPA-1/ERADMVIN-1~~  
~~06/26/87~~

3-30-90

DATA EVALUATION RECORD

1. CHEMICAL: Vincide 31
2. TEST MATERIAL: ~~Not reported~~ <sup>H.T.C 3/30/90</sup> 15% Nabam + 15% sodium dimethyl dithiocarbamate
3. STUDY TYPE: Freshwater Fish Acute Toxicity Test  
Species Tested: Rainbow trout (Salmo gairdneri)  
Bluegill sunfish (Lepomis macrochirus)
4. CITATION: Allen, R. (1975). Evaluation of Acute Toxicity of Vincide 31 to Fish Species. (Unpublished study received July 7, 1975, under 9386-7, submitted by Vinings Chem. Co., Atlanta, GA; CDL: 234870-A).
5. REVIEWED BY: Brian Wade  
Associate Scientist  
Environmental Science and Engineering, Inc.  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_
6. APPROVED BY: \_\_\_\_\_  
Signature: *Henry T. Craven*  
Date: *3/30/90*
7. CONCLUSIONS: Supplemental study. The study is scientifically sound with 96-hour LC50 of 1.73 (1.22-2.32) parts per million (ppm) for rainbow trout, and 3.44 (2.28-5.05) ppm for bluegill sunfish. Vincide 31 is moderately toxic to rainbow trout and bluegill sunfish. This study only partially fulfills the Guideline requirements because of deviations from recommended protocols.
8. RECOMMENDATIONS: The testing facility should have provided additional information on test material and stock preparation. Test temperatures were 11°C and 24°C for bluegill sunfish and rainbow trout, respectively. These tests should have been run at 17°C or 22°C for bluegill sunfish.  
  
Also missing was information on mortality (needed every 24 hours), screening information, and control responses.
9. BACKGROUND: N/A
10. DISCUSSION OF INDIVIDUAL TESTS: N/A

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11. MATERIALS AND METHODS:

- A. Test Animals: The test species were Bluegill sunfish (Lepomis macrochirus) and Rainbow trout (Salmo gairdneri). No information was provided on source, age, or size of test animals.
- B. Test System: 18.9-liter (L) glass containers with 10-L of test solution per container.
- C. Dosage: No information in report.
- D. Design: Twenty fish were used per concentration. Five fish were used per container with 4 containers per concentration. Six test concentrations were used in the protocol.
- E. Statistics: The 96-hour LC50 value was calculated by the Litchfield-Wilcoxon method.

12. REPORTED RESULTS:

	<u>Test Concentrations (ppm)</u>	<u>Number of Fish at Initiation</u>	<u>Number of Fish Surviving</u>	
			<u>Trout</u>	<u>Bluegill</u>
96-hour Results	0.98	20	16	16
(All 6 concen-	3.9	20	2	12
trations not reported)	15.6	20	0	0

13. STUDY AUTHOR'S CONCLUSIONS/QUALITY ASSURANCE MEASURES: LC50 values for Vincide 31: Rainbow trout - 2.7 (2.0-3.6) ppm  
Bluegill sunfish - 3.6 (2.7-4.9) ppm

14. REVIEWER'S DISCUSSION AND INTERPRETATION OF STUDY RESULTS:

- A. Test Procedure: Deviations from the protocol included: (1) test material was not properly identified, (2) water quality information was lacking, (3) test temperature deviated from the protocol, (4) mortality information was incomplete, and (5) there was no mention of controls.

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B. Statistical Analysis: LC50 values were verified by the Stephan computer program. Results from a moving average analysis gave LC50 values of 1.73 (1.22-2.32) ppm for Rainbow trout and 3.44 (2.28-5.05) ppm for Bluegill sunfish.

C. Discussion/Results: LC50 values of 1.73 ppm and 3.44 ppm indicate Vincide 31 is moderately toxic to Rainbow trout and Bluegill sunfish.

D. Adequacy of the Study:

Classification: Supplemental

Rationale: Deviations from protocol noted in 14A.

Repairability: No.

15. COMPLETION OF ONE-LINER FOR STUDY: Yes, June 25, 1987.