

US EPA ARCHIVE DOCUMENT

- 11801
1. Chemical: Baquacil
  2. Formulation: 20% a.i.
  3. Citation: Wheeler, A.G. (1980) Acute Toxicity of Vanticol<sup>R</sup> IB to Bluegill (Lepomis Macrochirus), Mix No. 1857, EPA Registration No. 10182-RO, Producer Name ICI Americas, Inc; Tested by EG&G Bionomics, Wareham, Mass. 02571.
  4. Reviewed By: Curtis Laird  
Fishery Biologist  
EEB/HED
  5. Date Reviewed: Aug. 26, 1980
  6. Test Type: Fish acute 96-hour LC50
    - A. Test Species: Bluegill Sunfish
  7. Reported Results: The 96-hour LC50 value was 0.62 ppm (0.46 to 0.83 ppm). There were no mortalities at any dose level after 24 hours.
  8. Reviewer's Conclusion:

This study indicates that Baquacil is highly toxic to bluegill sunfish. However this study does not fulfill the guidelines requirements.

In regard to the registrant's letter dated July 17, 1980, with a saturation of 21% dissolved oxygen does not meet the guideline requirements according to the recommended EPA protocol (Method for Acute Toxicity Tests With Fish, Microinvertebrates And Amphibians) of April. Therefore, another study must be conducted and submitted to this office before it will meet the registration standard.

In regard to the registrant's letter dated August 29, 1980 concerning mortality after 24-hour. The Ecological Effects Branch realizes certain compounds reach their peak of toxicity around the 24-hour period, but there was no information in the submission indicating this process took place with Baquacil.

Material/Methods

Test Procedures

The test procedures generally complies with the EPA protocol of April 1975 (Stephan's); except for dissolved oxygen.

Statistical Analysis

Not given

Discussion Results

In addition to the 96-hour LC50 the author provided the following:

| Organism | LC50 mg/I | 95% conf. limit mg/I |
|----------|-----------|----------------------|
| Bluegill | 24-h 0.62 | (0.46 - 0.83)        |
|          | 48-h 0.62 | (0.46 - 0.83)        |
|          | 96-h 0.62 | (0.46 - 0.83)        |

(No effect level 0.24 mg/I)

Reviewer's Evaluation

Test Procedure

The test generally complies with the recommended US EPA 1975, except for dissolved oxygen.

B. Statistical Analysis

The LC50 value was verified with Stephan's computer programs, binomial, moving average and probit method. See attached sheet.

C. Conclusion

1. Category: supplementary
2. Rationale: a 21% dissolved oxygen after 48 hours.
3. Repairability: not repairable