5-15-81

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

# BIOLOGICAL REPORT OF ANALYSIS

1. SAMPLE NO. MB 645
2. DATE COLLECTED N/A
3. REGION N/A

## SAMPLE IDENTIFICATION

4. LOT OR CODE NO(S). None
5. EPA REGISTRATION NO. None
6. ESTABLISHMENT NO. None
7. PRODUCT NAME Baquacil technical
8. PRODUCER NAME AND ADDRESS *(Include ZIP code)* N/A
9. DEALER NAME AND ADDRESS *(Include ZIP code)*

| 10. PHYSICAL FORM | | EMULS. CONC. | | PRESS. SPRAY | | DUST | | GRANULAR |
|---|---|---|---|---|---|---|---|---|
| | | WET. POWDER | | AEROSOL | | BAIT | X | OTHER liquid |

11. INGREDIENTS

A 20% solution of active ingredient.

## TEST

12. TYPE OF TEST: Static jar Test #2746

13. TEST ORGANISM(S): Rainbow trout (Salmo gairdneri)
Average weight: 0.461 gms.
Source: Wytheville National Fish Hatchery

14. METHOD NO. OPTS 1.206
15. DURATION 96 hours
16. CONCENTRATION 0.036-0.26ppm
17. DILUENT water

18. SUMMARY

Concentration of active ingredient

24 hour LC50 0.22 ppm. 95% confidence interval 0.20 to 0.25 ppm.
48 hour LC50 0.12 ppm. 95% confidence interval 0.11 to 0.14 ppm.
96 hour LC50 0.11 ppm. 95% confidence interval 0.09 to 0.13 ppm.

19. RESULTS

Concentration (ml/l): Mortality given below

| Total formulation | 1.3 | 0.78 | 0.48 | 0.30 | 0.18 | C |
|---|---|---|---|---|---|---|
| Active ingredient | 0.26 | 0.16 | 0.1 | 0.06 | 0.036 | |
| 24 hours | 8/10 | 0/10 | 0/10 | 0/10 | 0/10 | 0/10 |
| 48 hours | 10/10 | 9/10 | 1/10 | 0/10 | 0/10 | 0/10 |
| 72 hours | 10/10 | 9/10 | 3/10 | 0/10 | 0/10 | 0/10 |
| 96 hours | 10/10 | 10/10 | 3/10 | 0/10 | 0/10 | 0/10 |

Concentration of Baquacil declined from 1.2 ppm to 0.8 ppm after 72 hours.

| 20. TESTER'S INITS. | 21. SIGNATURE OF LAB SUPERVISOR | 22. LABORATORY | 23. DATE |
|---|---|---|---|
| D. N. | Steve Galvaterra | Terrestrial and Aquatic Biology | 5/15/81 |

EPA Hq Form 8510-14 (10-76)

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Rec. 5-19-81

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
~~WASHINGTON, D.C. 20460~~
Beltsville, Maryland 20705

OFFICE OF TOXIC SUBSTANCES
Terrestrial and Aquatic
Biology Unit

May 15, 1981

MEMORANDUM

SUBJECT: Ninety-six Hour LC50 for Technical Baquacil

FROM: Jim Tompkins JT
Fishery Biologist (TS 768-C)

TO: Curtis Laird
Aquatic Test Coordinator (TS 769-C)

Find enclosed the results of a 96-hour static jar test for rainbow trout exposed to technical baquacil. The 96-hour LC50 for rainbow trout is 0.11 ppm vs 0.34 ppm for bluegill. One of the reasons for baquacil being more toxic to rainbow trout may be that baquacil breaks down at 22°C at a rate three times faster than it breaks down at 12°C. In a test run at 22°C, the concentration of baquacil declined from 1.2 ppm to 0.75 ppm in 24 hours. At a temperature of 12°C the concentration of baquacil declined from 1.2 ppm to 0.8 ppm in 72 hours.

The concentration of baquacil was not measured in the rainbow trout test because the chemical method works for concentrations of baquacil above 1 ppm.

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9. DEALER NAME AND ADDRESS *(Include ZIP code)*

| 10. PHYSICAL FORM | | EMULS. CONC. | | PRESS. SPRAY | | DUST | | GRANULAR |
|---|---|---|---|---|---|---|---|---|
| | | WET. POWDER | | AEROSOL | | BAIT | X | OTHER liquid |

11. INGREDIENTS

A 20% solution of active ingredient. Actual concentration between 19 to 20%.

## TEST

12. TYPE OF TEST: Flow through Test # 2469

13. TEST ORGANISM(S): Bluegill (Lepomis macrochirus)
Average wt: 0.76 gms.
Source: Harrison Lake National Fish Hatchery

14. METHOD NO. None
15. DURATION 96 hrs
16. CONCENTRATION 0.375 - 6ppm
17. DILUENT water

18. SUMMARY

Concentration based on total formulation.

96 hr LC50 2.2 ppm. 95% confidence interval 1.93 to 2.33 ppm.

19. RESULTS

| Time | Concentration ppm (ml/l) 6 | 3 | 1.5 | 0.75 | 0.375 | C |
|---|---|---|---|---|---|---|
| 24 hrs | 20/20 | 2/20 | 0/20 | 0/20 | 0/20 | 0/20 |
| 48 hrs | | 12/20 | 1/20 | 0/20 | 0/20 | 0/20 |
| 72 hrs | | 18/20 | 1/20 | 0/20 | 0/20 | 0/20 |
| 96 hrs | | 19/20 | 1/20 | 0/20 | 0/20 | 0/20 |

Previous static jar test 1.5 ppm killed 2/10 fish, 0.9 ppm killed 0/10 in 96 hours.

Chemical samples awaiting analysis.

| 20. TESTER'S INITS. | 21. SIGNATURE OF LAB SUPERVISOR | 22. LABORATORY | 23. DATE |
|---|---|---|---|
| D N | Steve Galvinter | Terrestrial & Aquatic Biology | 12/30/80 |

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