

US EPA ARCHIVE DOCUMENT

4-1-80

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
CHEMICAL and BIOLOGICAL INVESTIGATIONS BRANCH

DATE: April 1, 1980

SUBJECT: Terrestrial and Aquatic Biology Laboratory Work on "Rid-O-Mil 5% WP"

FROM: John A. McCann, <sup>Jam</sup> Section Head, BHIS TS-768

TO: Sandra Advard  
Information Services Branch  
Program Support Division TS-757

Rid-O-Mil 5% WP was tested in static jars--5 rainbow trout in each of two jars, and 10 bluegill in another jar. The jars were treated with 200 ppm of the chemical (direct application). The water became very cloudy with some precipitate forming. It was impossible to see all of the fish without disturbing the jar. When the jar was stirred, it was possible to see the fish--none appeared to be dead. In the jar containing the 10 bluegill, it was possible to see the fish by the 72-hour reading. No fish died during these studies with Rid-O-Mil 5% WP.

The DO was 7.0 in one of the trout jars in 96 hours and 5.4 in the bluegill tank by 96 hours. The trout averaged 1.7 g in weight and 57.5 mm in length. The bluegill averaged 0.67 g in weight and 38.8 mm in length.

Under the conditions of this preliminary test, Rid-O-Mil 5% WP does not appear to be toxic to either rainbow trout or bluegill at 200 ppm.



BIOLOGICAL REPORT OF ANALYSIS

SAMPLE IDENTIFICATION

4. LOT OR CODE NO(S).

None

5. EPA REGISTRATION NO.

None

6. ESTABLISHMENT NO.

None

7. PRODUCT NAME

Ridomil 2Z

8. PRODUCER NAME AND ADDRESS (Include ZIP code)

Ciba-Geigy  
Greensboro, North Carolina

9. DEALER NAME AND ADDRESS (Include ZIP code)

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

11. INGREDIENTS

N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-alanine methyl ester

Ridomil 2Z

TEST

12. TYPE OF TEST

Static jar  
Test #2411

13. TEST ORGANISM(S)

Bluegill (Leomis macrochirus)  
Average weight: .7 grams  
Source: Harrison Lake National Fish Hatchery

14. METHOD NO. TSD 1.206

15. DURATION 96 hrs

16. CONCENTRATION 25-35 ppm

17. DILUENT Direct

18. SUMMARY

Concentration based on total formulation.  
96-hour LC50 is 27 ppm (95% confidence interval 23.6 to 30.8 ppm).

19. RESULTS

Time	Slope	Chi 2	Concentration in ppm (percentage mortality given below)			
			35	30	25	C
24 hrs	1.239	0.15	100	70	30	0
48 hrs			100	70	40	0
72 hrs			100	70	40	0
96 hrs.	1.239	0.15	100	70	40	0

Ten fish per concentration.

Loading rate 0.5 g fish/liter.

20. TESTER'S INITS.

21. SIGNATURE OF LAB SUPERVISOR

22. LABORATORY

Animal Biol

23. DATE

7/29/76

264



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

BIOLOGICAL REPORT OF ANALYSIS

1. ID 570  
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  
Ridomil Tech

8. PRODUCER NAME AND ADDRESS (Include ZIP code)  
Ciba-Geigy  
Greensboro, North Carolina  
9. DEALER NAME AND ADDRESS (Include ZIP code)

10. PHYSICAL FORM  
EMULS. CONC. WET. POWDER  
PRESS. SPRAY AEROSOL  
DUST BAIT  
GRANULAR OTHER brown powder

11. INGREDIENTS  
N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-alanine methyl ester)  
Technical Ridomil 95.1%

TEST

12. TYPE OF TEST  
Static jar Test #2413  
13. TEST ORGANISM(S)  
Bluegill (Lepomis macrochirus)  
Average weight: .88 gms.  
Source: Harrison Lake National Fish Hatchery  
14. METHOD NO. TSD 1.206  
15. DURATION 96 hr  
16. CONCENTRATION 24-300 ppm  
17. DILUENT Acetone

18. SUMMARY  
Information based on total formulation.  
96 hr LC50 is 139 ppm.

19. RESULTS

Time	Concentration ppm (percent mortality given below)						
	300	180	108	65	40	24	C
24 hrs	10	0	0	0	0	0	0
48 hrs	100	100	0	0	0	0	0
72 hrs	100	100	0	0	0	0	0
96 hrs	100	100	0	0	0	0	0

  

Concentration of Ridomil	Ten fish per concentration.	Dissolved O <sub>2</sub> levels in ppm			
		0 hrs	24 hrs	48 hrs	96 hrs
Control		6.0	3.8	1.8	0.8
108 ppm		6.1	3.1	1.4	0.4

Loading rate of fish 0.59 g/liter of water.

20. TESTER'S INITS.  
21. SIGNATURE OF LAB SUPERVISOR  
22. LABORATORY  
Terrestrial & Aquatic Biology 7/24/74  
23. DATE



ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460  
**BIOLOGICAL REPORT OF ANALYSIS**

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  
Ridomil Tech

8. PRODUCER NAME AND ADDRESS (Include ZIP code)  
Ciba-Geigy  
Greensboro, North Carolina  
9. DEALER NAME AND ADDRESS (Include ZIP code)

10. PHYSICAL FORM  
EMULS. CONC. WET. POWDER  
PRESS. SPRAY AEROSOL  
DUST BAIT  
GRANULAR OTHER brown powder

11. INGREDIENTS  
N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-alanine methyl ester)  
Technical Ridomil 95.1%

**TEST**

12. TYPE OF TEST  
Static jar Test #2414  
13. TEST ORGANISM(S)  
Rainbow trout (Salmo gairdneri)  
Average weight: 1.680 gm.  
Source: Wytheville National Fish Hatchery  
14. METHOD NO. TSD 1.206  
15. DURATION 96 hrs  
16. CONCENTRATION 24-180 ppm  
17. DILUENT Acetone

18. SUMMARY  
Information based on total formulation  
96 hr LC50 is 132 ppm (95% confidence interval 103.05 to 169.08 ppm)

19. RESULTS

Time	Slope	Chi 2	Concentration in ppm (percent mortality given below)					
			180	108	65	40	24	C
24 hr			100	0	0	0	0	0
48 hr			100	0	0	0	0	0
72 hr			100	0	0	0	0	0
96 hr	1.327	0.08	100	20	0	0	0	0

Ten fish per concentration.  
Loading rate fish/water volume 0.56g/l

20. TESTER'S INITS.  
21. SIGNATURE OF LAB SUPERVISOR  
22. LABORATORY  
Terrestrial & Aquatic Biology  
23. DATE  
7/24/79

4 66



BIOLOGICAL REPORT OF ANALYSIS

MB 57C  
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  
Ridomil Tech

8. PRODUCER NAME AND ADDRESS (Include ZIP code)  
Ciba-Geigy  
Greensboro, North Carolina

9. DEALER NAME AND ADDRESS (Include ZIP code)

10. PHYSICAL FORM

EMULS. CONC.	PRESS. SPRAY	DUST	GRANULAR
WET. POWDER	AEROSOL	BAIT	OTHER brown powder

11. INGREDIENTS

N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-alanine methyl ester)

Ridomil 95.1%

TEST

12. TYPE OF TEST Static jar Test #2415	13. TEST ORGANISM(S) <u>Daphnia magna</u> Source: TABU stock culture	14. METHOD NO. TSD 1.206 15. DURATION 48 hrs 16. CONCENTRATION 26-200 ppm 17. DILUENT Acetone
--	--	--

18. SUMMARY

Concentrations based on total formulation.  
48 hr EC50 is 121 ppm (95% confidence interval 80.5 to 181.8 ppm)

19. RESULTS

Time	Slope	Chi 2	Concentration in ppm (percent mortality given below)						
			200	120	72	43	26	SC	C
24 hrs			20	10	10	0	0	0	0
48 hrs	2.236	0.166	70	40	40	10	0	0	0

Ten daphnia/concentration.

Daphnia bioassays conducted in reconstituted deionized water with pH 7.8, total alkalinity (bicarbonate) 105 ppm; total hardness (ppm CaCO<sub>3</sub>) 215 ppm.

20. TESTER'S INITS. M M	21. SIGNATURE OF LAB SUPERVISOR	22. LABORATORY Terrestrial & Aquatic Biology	23. DATE 7/26/79
----------------------------	---------------------------------	---	---------------------



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

BIOLOGICAL REPORT OF ANALYSIS

MB 575

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

R E domil 2%

8. PRODUCER NAME AND ADDRESS (Include ZIP code)

Ciba-Geigy  
Greensboro, North Carolina

9. DEALER NAME AND ADDRESS (Include ZIP code)

10. PHYSICAL FORM

EMULS. CONC.

PRESS. SPRAY

DUST

GRANULAR

WET. POWDER

AEROSOL

BAIT

X

OTHER brown

liquid

11. INGREDIENTS

N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-aniline methyl ester

R E domil 2%

TEST

12. TYPE OF TEST

Static jar  
Test #2416

13. TEST ORGANISM(S)

Daphnia magna  
Source: TABU stock culture

14. METHOD NO. TSD 1,206

15. DURATION 48 hrs

16. CONCENTRATION 6 - 78 ppm

17. DILUENT Acetone

18. SUMMARY

Concentration based on total formulation.

48 hr EC50 is 12.5 ppm (95% confidence interval 9.9 to 15.3 ppm)

19. RESULTS

Concentration in ppm (percent mortality given below)

Time	Slope	Chi 2	78	47	28	17	10	6	SC	C
24 hrs			100	90	70	50	10	0	0	0
48 hrs	1.303	0.022	100	100	100	90	20	0	0	0

Ten organisms/concentration.

Daphnia bioassays conducted in reconstituted deionized water with pH 7.8, total alkalinity (bicarbonate) 105 ppm; total hardness (ppm CaCO<sub>3</sub>) 215 ppm.

20. TESTER'S INITS.

21. SIGNATURE OF LAB SUPERVISOR

22. LABORATORY

Terrestrial & Aquatic Biology 7/24/76

23. DATE

6-68



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

BIOLOGICAL REPORT OF ANALYSIS

118 575  
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  
Ridomil 2%

8. PRODUCER NAME AND ADDRESS (Include ZIP code)  
Ciba-Geigy  
Greensboro, North Carolina  
9. DEALER NAME AND ADDRESS (Include ZIP code)

10. PHYSICAL FORM	EMULS. CONC.	PRESS. SPRAY	DUST	GRANULAR
	WET. POWDER	AEROSOL	BAIT	OTHER <u>liquid</u>

11. INGREDIENTS  
N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-alanine methyl ester  
Ridomil 2%

TEST

12. TYPE OF TEST Static jar Test #2417	13. TEST ORGANISM(S) Rainbow trout ( <u>Salmo gairdneri</u> ) Average weight: 1.8 gms (estimated) Source: Wytheville National Fish Hatchery	14. METHOD NO. TSD 1.206
		15. DURATION 96 hrs
		16. CONCENTRATION 2.1 - 25 ppm
		17. DILUENT direct add

18. SUMMARY  
Concentration based on total formulation.  
96 hr LC50 is 18.4 ppm (95% confidence interval 15.03 to 22.45 ppm)

19. RESULTS

Time	Slope	Chi 2	Concentration in ppm (percent mortality given below)						
			25	15	9	6	3.6	2.1	C
24 hrs	1.242	0.027	100	40	0	0	0	0	0
48 hrs			100	40	0	0	0	0	0
72 hrs			100	40	0	0	0	0	0
96 hrs	1.242	0.027	100	40	0	0	0	0	0

Five fish/concentration.  
Loading rate fish/water volume 0.6g/l

20. TESTER'S INITS.	21. SIGNATURE OF LAB SUPERVISOR	22. LABORATORY Terrestrial & Aquatic Biology	23. DATE 7/2/70
---------------------	---------------------------------	---	--------------------

7-69