

US EPA ARCHIVE DOCUMENT

8/14/78

DATA REVIEW NO.: ES-H-1

TEST: Aquatic invertebrate acute toxicity

SPECIES: Daphnia pulex

RESULTS:

<u>Chemical</u>	<u>72 hour LC₅₀</u>	<u>Confidence Limits (mg/l)</u>
R.P. 26019 Technical	4.0 mg/l	2.9 - 5.5
Rovral	5.8 mg/l	3.2 - 10.3
W.P. (inert)	73 mg/l	62 - 86

CHEMICAL: a. R.P. 26019 Technical
 b. Rovral W.P. (50% a.i.)
 c. W.P. (inert) inert ingredients

TITLE: Toxicity of R.P. 26019 to Daphnia pulex

ACCESSION NO.: 232703

STUDY DATE: June 3, 1977

RESEARCHER: D. Ambrosi, J. Desmoras, L. Lacroix

REGISTRANT: Rhodia, Inc.

VALIDATION CATEGORY: Supplemental (all studies)

ABSTRACT: The LC₅₀ of R.P. 26019 Technical, Roval and Roval inerts on Daphnia was determined. All dilutions were made with distilled water. Two replicates (100 ml each) of each concentration were placed in glass vials and approximately 50 Daphnia were introduced into each. Temperatures were maintained at 25 ± 1°C during the day and 18 ± 1°C during the night.

CATEGORY RATIONAL: Dilution water was not reconstituted. Control mortality was 10%. Temperatures were not maintained at the recommended 17°C.

FORMULATION:			IA	IB	T	FW	EC	R		
% a.i.	SC #	CHEMICAL NAME	Validator:					Date:		
(a) Technical		Iprodione	Larry Turner					August 14, 1978		
(b) 50% W.P.			Test Type:							
			Aquatic invertebrate acute toxicity <u>Daphnia pulex</u>							
			Test ID.#		ES-H1					

CITATION: Ambrosi, D., J. Desmoras, and L. Lacroix. 1977. Toxicity of R.P. 26 019 to Daphnia pulex. 5 p. Submitted by Rhodia, Inc.; 359-EUP-58; Acc #232703, 1/13/78.

RESULTS: Daphnia pulex 72-hour LC₅₀ (tech) = 4.0 mg/l (95% c.i. 2.9 - 5.5 mg/l); for the 50% W.P., 72-hour LC₅₀ = 5.8 mg/l (95% c.i. 3.2 - 10.3 mg/l). For the technical product, 32% mortality occurred at the lowest dose of 1 mg/l; 100% mortality occurred at the ^{highest} lowest dose of 16 mg/l. ~~100% mortality occurred at the highest dose of 32 mg/l.~~ Control mortality was 14%. Data was included, but no calculations made for 48 hour mortality.

VALIDATION CATEGORY: Supplemental

CATEGORY RATIONALE: This study was classified as supplemental because, although it provided useful information, the temperature was too variable, the control mortality was slightly excessive, the 48 hour LC₅₀ could not be determined except as an estimated value, and procedural details were extremely brief.

CATEGORY REPAIRABILITY: No repair is possible.

ABSTRACT: Daphnia pulex were exposed for 72 hours to technical Iprodione in concentrations of 1, 2, 4, 8 and 16 mg/l and to the 50% WP in concentrations of 1, 2, 4, 8, 16, and 32 mg/l. Concurrent controls were also tested. Each concentration, and the controls, had two replicates with each replicate having from 46 - 106 daphnids. Daphnids were less than 3 days old. Temperature was 25 + 1°C during the day and 18 ± 1°C at night. No other procedural details were reported.

Complete mortality data was included, but only as estimated figures for 24 and 48 hours. With 14% control mortality, Abbot's formula was used to correct mortality data. The method of LC₅₀ determination was not reported however, it was stated that mortality was converted to probits. No statistical check was run since this study will not support registration.

For the 50% W.P., 30% mortality occurred at the lowest dose of 1mg/l.

Daphnia 4-hr LC50 (Cannon)

Iprodione

Finney probit

L. Turner

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0.1

4.

20.

0.3

7.

20.

0.5

11.

20.

0.7

12.

20.

1.

18.

20.

1.818

5.760

3.550

3.448

M
YINT
LM M
CHI2

0.382

0.272

0.535

LD50
LDCL
UPCL

0.075

0.032

0.177

LD10
LDCL
UPCL

1.936

0.902

4.158

LD90
LDCL
UPCL

Daphnia 18-hr LC50 (UCEB)

Iprodione

K-Trinact Spormon kårben

3.2

4.

20.

Finney

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5.6

3.

20.

10.

15.

20.

18.

20.

20.

32.

20.

20.

25.

7.77

3.80

6.88

XTRM
LC50
LDCL
UPCL

20.

7.79

3.73

7.04

XTRM
LC50
LDCL
UPCL