

US EPA ARCHIVE DOCUMENT

Duplicate

103.1.4 Aquatic Invertebrate

DATA REVIEW NUMBER: ES H1

TEST: Aquatic Invertebrate Acute Toxicity

SPECIES: Water Flea (Daphnia magna)RESULTS: 96 hour LC₅₀ = 39 ppt (25-62 ppt) 95% C.L.

No discernible effect level 32 ppt.

48 hour LC₅₀ = 75 ppt (54-103 ppt) 95% C.L.

Statistical analysis of data by Finney Probit gave the following results for the 96 hour LC₅₀ [Chi²(3df) = 7.81].

5.705	M						
13.033	YINT	0.039	LD50	0.023	LD10	0.066	LD90
1.497	LW M	0.033	LOCL	0.017	LOCL	0.053	LOCL
4.712	CHI ²	0.046	UPCL	0.033	UPCL	0.082	UPCL

CHEMICAL: FMC 33297 Technical (95.7% A.I.)

TITLE: Acute Toxicity of FMC - 33297 Technical to Water Flea (Daphnia Magna)

ACCESSION NO: 096699

STUDY DATE: December, 1975

RESEARCHER: Bentley, Robert E.
E. E. & G. Bionomics
Aquatic Toxicology Laboratory
Wareham, Massachusetts

REGISTRANT: FMC Corporation

VALIDATION CATEGORY: Core

CATEGORY REPAIRABILITY: NA. The aquatic invertebrate toxicity^{data} for this study reported for 48 hours did not produce favorable results for the Chi² analysis ~~by~~ with Finney Probit. This study did supply values for 96-hour LC₅₀ for Daphnia magna. This study used acetone solvent and had 7% mortality in the solvent control. The raw data was analyzed using Finney Probit after correcting for control mortality by Abbotts Formula. The value derived had an acceptable Chi² value (4.712 < 7.81)



and therefore the 96 hour LC₅₀ will be used in the hazard assessment.

FMC 33297 95.7%AI

EGG Economics

Dec 1975

Daphnia magna

96 hr LC50

O'Brien
1/11/78

Furness Probit
Corrected values
using Abbott Formulas
for 7% mortality
in control

Daphnia magna

48 hr LC50

0.042

C.

15.

0.056

E.

15.

0.075

14.

15.

0.1

13.

15.

Chi² 2df = 5.99

5.99 <

8.951	M
15.735	YINT
1.253	LW M
7.528	CHI ²

0.063	LD50
0.057	LDCL
0.070	UPCL

0.045	LD10
0.038	LDCL
0.054	UPCL

0.068	LD90
0.074	LDCL
0.104	UPCL

0.032

3.16

15.

0.042

11.78

15.

0.056

10.7

15.

0.075

14.

15.

0.1

15.

15.

Chi² 3df = 7.81

5.705	M
13.033	YINT
1.457	LW M
4.712	CHI ²

0.039	LD50
0.033	LDCL
0.046	UPCL

0.023	LD10
0.017	LDCL
0.033	UPCL

0.066	LD90
0.053	LDCL
0.082	UPCL