103.1.4   Aquatic Invertebrate

DATA REVIEW NUMBER: ES K1

TEST: Aquatic Invertebrate Acute Toxicity

SPECIES: Water Flea (Daphnia magna)

RESULTS: 48 hour LC_{50} = 151 ppt (120-188 ppt) 95% C.L.

96 hour LC_{50} = 112 ppt (76-164 ppt) 95% C.L.

No discrenible effect level = 84 ppt.

Statistical analysis by Finney Probit for 96 hour LC_{50} is given below.

5.882	M	0.138	LC50	0.229	LC90	0.064	LC10
10.051	YINT	0.121	LOCL	0.182	LOCL	0.066	LOCL
1.479	LW M	0.158	UPCL	0.287	UPCL	0.106	UPCL
6.919	CHI^2						

CHEMICAL: FMC 33297 3.2 EC 38.4% a.i.

TITLE: Acute Toxicity of FMC 33297 3.2 EC to Water Flea (Daphnia magna)

ACCESSION NO: 096699

STUDY DATE: December 1975

RESEARCHER: Bentley, Robert E.
E.G.&G Bionomics
Aquatic Toxicology Lab.
Wareham, Mass.

REGISTRANT: FMC Corp.

VALIDATION CATEGORY: Core

CATEGORY REPAIRABILITY: N.A. The statistical analysis for the   96 hour LC_{50} can be used in its present form because mortality did not occur in the control. The 96 hour LC_{50}

is considered representative of
daphnia sensitivity to permethrin.

VALIDATOR: Tom O'Brien - 1/11/78

Column 1

upper dose level eliminated
Finney Probit
Daphnia Magna
48 hr LC50
E G & G Bionomics
Dec 1975
FMC 33297 3.2 EC.
38.4 % A.I.

O'Brien
1/11/78

```
0.084
0.
15.

0.109
1.
15.

0.146
3.
15.

0.196
10.
15.

0.261
15.
15.
```

Chi² 3df = 7.81

```
9.759      M
12.467     YINT
1.267      LW M
1.801      CHI²

0.171      LD50
0.155      LDCL
0.189      UPCL

0.126      LD10
0.109      LDCL
0.147      UPCL

0.232      LD90
0.198      LDCL
0.271      UPCL
```

Column 2

Finney Probit
Daphnia Magna
48 hr LC50
E G & G Bionomics
Dec 1975
FMC 33297 3.2 EC
38.4 % A.I.

O'Brien
1/11/78

```
0.084
0.
15.

0.109
1.
15.

0.146
3.
15.

0.196
10.
15.

0.261
15.
15.

0.365
14.
15.
```

Chi² 4df = 9.49

```
7.475      M
10.617     YINT
1.361      LW M
7.515      CHI²

0.177      LD50
0.158      LDCL
0.199      UPCL

0.119      LD10
0.100      LDCL
0.142      UPCL

0.263      LD90
0.220      LDCL
0.315      UPCL
```

Column 3

Finney Probit
Daphnia magna
96 hour LC50
E G & G Bionomics
Dec 1975
FMC 33297 3.2 EC
38.4 % A.I.

O'Brien
1/11/78

```
0.084
1.
15.

0.109
7.
15.

0.146
5.
15.

0.196
12.
15.

0.261
15.
15.
```

Chi² 3df 7.81

```
5.882      M
10.051     YINT
1.479      LW M
6.919      CHI²

0.138      LD50
0.121      LDCL
0.158      UPCL

0.084      LD10
0.066      LDCL
0.106      UPCL

0.229      LD90
0.182      LDCL
0.287      UPCL
```