

US EPA ARCHIVE DOCUMENT

114501

9000 data 5
9001 data 3.20,1.80,1.00,0.56,0.32
9002 data 10,10,10,10,10
9003 data 8,1,0,0,0
run

*Fiddler crabs.
LARVIN 99% a.i.
(Thiodicarb)*

80/11/14. 10.00.51.
BASIC PROGRAM S79LC50

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*****
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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
3.2	10	8	80.	5.46875
1.8	10	1	10.	1.07422
1	10	0	0	9.76563E-2
.56	10	0	0	9.76563E-2
.32	10	0	0	9.76563E-2

THE BINOMIAL TEST SHOWS THAT 1.8 AND +INFINITY CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 2.52255

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*****RESULTS CALCULATED USING THE MOVING AVERAGE METHOD
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PAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
1	.370773	2.52255	2.07215	3.25647

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*****RESULTS CALCULATED USING THE PROBIT METHOD
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ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
7	.402493	1	.999961

LOPE = 8.52851
5 PERCENT CONFIDENCE LIMITS = 3.11782 AND 13.9392

LC50 = 2.54815
5 PERCENT CONFIDENCE LIMITS = 2.02611 AND 3.25826

1. 114301
 9000 data 5
 9001 data 0.1,0.056,0.032,0.018,0.010
 9002 data 10,10,10,10,10
 9003 data 9,3,2,0,0
 run

grass shrimp
LARVIN 99% a.i (thiodicarb)

80/11/14. 10.03.43.
 BASIC PROGRAM S79LC50

CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
.1	10	9	90.	1.07422
.056	10	3	30.	17.1875
.032	10	2	20.	5.46875
.018	10	0	0	9.76563E-2
.01	10	0	0	9.76563E-2

THE BINOMIAL TEST SHOWS THAT .018 AND .1 CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 6.71129E-2

-----RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
2	.370773	6.23511E-2	4.47739E-2	9.79631E-2

-----RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
6	.279636	1	.566682

SLOPE = 4.4735
 95 PERCENT CONFIDENCE LIMITS = 2.10789 AND 6.83911

LC50 = 5.96247E-2
 95 PERCENT CONFIDENCE LIMITS = 4.51542E-2 AND 8.43596E-2

SRU 1.412 UNTS.

RUN COMPLETE.

2

9000 data 5
9001 data 1.80,1.0,0.56,0.32,0.18
9002 data 10,10,10,10,10
9003 data 10,6,0,0,0
run

80/11/13. 10.11.52.
BASIC PROGRAM S79LC50

*sheepshead windows
LARVIN 990/a.i
(Thiodicarb)*

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
1.8	10	10	100	9.76563E-2
1	10	6	60.	37.6953
.56	10	0	0	9.76563E-2
.32	10	0	0	9.76563E-2
.18	10	0	0	9.76563E-2

THE BINOMIAL TEST SHOWS THAT .56 AND 1.8 CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS .929115

WHEN THERE ARE LESS THAN TWO CONCENTRATIONS AT WHICH THE PERCENT DEAD IS BETWEEN 0 AND 100, NEITHER THE MOVING AVERAGE NOR THE PROBIT METHOD CAN GIVE ANY STATISTICALLY SOUND RESULTS.

114501

9000 data 5
9001 data 5.60,3.20,1.80,1.0,0.56
9002 data 10,10,10,10,10
9003 data 8,3,3,2,0
run

80/11/13. 10.21.50.
BASIC PROGRAM S79LC50

*Coho Salmon-LARVIN 99% a.i.
(Thiodicarb)*

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
5.6	10	8	80.	5.46875
3.2	10	3	30.	17.1875
1.8	10	3	30.	17.1875
1	10	2	20.	5.46875
.56	10	0	0	9.76563E-2

THE BINOMIAL TEST SHOWS THAT .56 AND +INFINITY CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 3.98432

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-----RESULTS CALCULATED USING THE MOVING AVERAGE METHOD
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SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
2	.802549	3.74368	2.10283	24.6424

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-----RESULTS CALCULATED USING THE PROBIT METHOD
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ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
5	.317451	1	.384905

SLOPE = 2.35018
95 PERCENT CONFIDENCE LIMITS = 1.02602 AND 3.67434

LC50 = 3.29885
95 PERCENT CONFIDENCE LIMITS = 2.20845 AND 6.80881

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114501

9000 data 5
9001 data 5.60,3.20,1.80,1.0,0.56
9002 data 10,10,10,10,10
9003 data 7,1,1,0,0
run

LARVIN 99% a.i.
BROOK TROUT
(This is carb)

80/11/14. 09.47.49.
BASIC PROGRAM S79LC50

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
5.6	10	7	70.	17.1875
3.2	10	1	10.	1.07422
1.8	10	1	10.	1.07422
1	10	0	0	9.76563E-2
.56	10	0	0	9.76563E-2

THE BINOMIAL TEST SHOWS THAT 3.2 AND +INFINITY CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 4.70229

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-----RESULTS CALCULATED USING THE MOVING AVERAGE METHOD
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SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
1	.509802	4.70229	3.79441	7.2511

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-----RESULTS CALCULATED USING THE PROBIT METHOD
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ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
7	.442603	1	.518391

SLOPE = 4.18571
95 PERCENT CONFIDENCE LIMITS = 1.40102 AND 6.9704

LC50 = 4.69135
95 PERCENT CONFIDENCE LIMITS = 3.49554 AND 9.15432

114501

9000 data 5
9001 data 3.20,1.80,1.0,0.56,0.32
9002 data 10,10,10,10,10
9003 data 6,3,0,0,0
run

*RAINBOW TROUT. LARVIN 99% a.i.
(Thiodicarb)*

80/11/13. 10.04.26.
BASIC PROGRAM S79LC50

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
3.2	10	6	60.	37.6953
1.8	10	3	30.	17.1875
1	10	0	0	9.76563E-2
.56	10	0	0	9.76563E-2
.32	10	0	0	9.76563E-2

THIS DATA SET DOES NOT MEET THE CRITERIA ESTABLISHED BY THE COMMITTEE ON METHODS FOR TOXICITY TESTS WITH AQUATIC ORGANISMS BECAUSE NO PERCENT DEAD IS GREATER THAN 65 PERCENT.

THE BINOMIAL TEST SHOWS THAT 1 AND +INFINITY CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 2.64771

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*****RESULTS CALCULATED USING THE MOVING AVERAGE METHOD
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SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS
1	2.35283	2.64771	0 +INFINITY

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*****RESULTS CALCULATED USING THE PROBIT METHOD
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ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
7	.447311	1	.864648

SLOPE = 4.56354
95 PERCENT CONFIDENCE LIMITS = 1.51138 AND 7.61569

LC50 = 2.65659
95 PERCENT CONFIDENCE LIMITS = 2.00089 AND 4.82677

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CHEMICAL NAME : Dimethyl-N-N'-[thiobis[(methylimino) carbonyloxy]]bis-ethonimidothipate

ALTERNATE NAME : Larvin; UC 51762

CAS NO :

PRINCIPAL USE : Insecticide

SAMPLE DESCRIPTION : Technical 99%

TEST ORGANISM	TEST CONDITIONS							RESULTS
COMMON NAME	LIFE	TMP	SAL	S	DUR	TEST	CONC	M
SCIENTIFIC NAME	STAGE	C	ppt	FT	h		(95% CI)	N
Alga		:20	:30	:S	:96	:EC50	:450 ug/l	:N
Skeletonema costatum		:	:	:	:	:G	:(410-510)	:
Mysid	J 1 d	:25	:20	:S	:96	:LC50	:260 ug/l	:N
Mysidopsis bahia		:	:	:	:	:	:(230-300)	:
Sheepshead minnow	J 28 d	:25	:20	:S	:96	:LC50	:>1,000 ug/l	:N
Cyprinodon variegatus		:	:	:	:	:	:	:

MAYER

34
38
NUTRALL 151
SAR 106

FLORIDANUS 136

PAULSTRIS 153

267 dwt

1 x .25 x 122 PPM

= 30.5 PPM

195

4 x 170

680

7