

US EPA ARCHIVE DOCUMENT

3-13-79

X  
NTB

Validation Sheet

Formulation: assumed to be 100% a.i.

Chemical Name: San 326 10G

Validator: Ray Matheny

Date: 3/13/79

Test Type: Fish Acute 96 hr. LC<sub>50</sub>

Test I.D. #: UCES Project #: 11506-16-03

Citation: Calmbacher, C. W. 1978. Acute Toxicity of San 326 I Lot #7801 to Bluegill Sunfish, Lepomis macrochirus Prepared for Sandoz, Inc. by Union Carbide Environmental Services. (pg. 0083 within Accession No. 097840).

Validation Category: Core

Result:	<u>Species</u>	<u>Test</u> 96 hr. LC <sub>50</sub>	<u>Confidence Limits</u>
	Bluegill sunfish	0.07 mg/l*	(0.05 - 0.11 mg/l)

\* Using the Spearman-Kärber Estimator

This test with the T.I. 59 Computer, resulted in an LC<sub>50</sub> value of 0.13 with no confidence limits determined.

Validation Category Rationale: the test was conducted in accordance with standard procedures though the identical LC<sub>50</sub>, as determined by the registrant, was not attained (0.07 vs 0.13 mg/l).

Category Repairability/Rationale: NA

72-1

1/7/80  
D/302

Abstract:

Standard test procedures were used:

Five groups of bluegill sunfish were tested at 0.018, 0.032, .056, 0.1 and 0.18 ppm. Mortalities were 0,0, 0,0, and 10, respectively. Test solution temperatures ranged from 20.0°C to 21.2°C. Dissolved O<sub>2</sub> varied from 9.2 to 7.5 mg/l., while pH ranged 7.32 to 7.39.

San 326 I - 3/12/79

9000 data 5  
9001 data 0.180,0.100,0.056,0.032,0.018  
9002 data 10,10,10,10,10  
9003 data 10,0,0,0,0  
run

Bluegill Sunfish  
LC<sub>50</sub> - 96 hr.

79/03/12, 13.50.18.  
BASIC PROGRAM A78LC50

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*****
ONC.          NUMBER      NUMBER      PERCENT      BINOMIAL
              EXPOSED     DEAD        DEAD         PROB. (PERCENT)
.18           10         10         100          9.76563E-2
.1            10         0          0            9.76563E-2
.056         10         0          0            9.76563E-2
.032         10         0          0            9.76563E-2
.018         10         0          0            9.76563E-2

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THE BINOMIAL TEST SHOWS THAT .1 AND .18 CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS 99.8047 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 174164

See Spearman  
Karber test  
attached -

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.

Spearman - Karber test : Bluegill Sunfish  $LC_{50} - 96 \text{ hr.}$

0.018		0.018	
0.		0.	
10.		10.	
0.032		0.032	
0.		0.	
10.		10.	
0.056		0.056	
0.		0.	
10.		10.	
0.1		0.1	
0.		0.	
10.		10.	
0.18		0.18	
10.		10.	
10.		10.	
0.	%TRM	10.	%TRM
<u>0.13</u>	LC50	<u>0.13</u>	LC50
NO CLS		NO CLS	