

US EPA ARCHIVE DOCUMENT

Validation Sheet

Core 72-1

Rainbow Trout

LC50 = 360ppb

X

N to

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. LC₅₀

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

Citation: Calmbacher, C.W. et. al. 1978. Acute Toxicity of San 326 I Lot. No. 7801 To the Rainbow Trout, Salmo gairdneri Richardson. Prepared for Sandoz, Inc. by Union Carbide Environmental Services. (pg. 0072 with Accession No. 097840).

Validation Category: Core

Result:	<u>Species</u>	<u>Test</u>	<u>Confidence Limits</u>
	Rainbow trout	96 hr. LC ₅₀ * 0.36 mg/l	(0.30 - 0.42 mg/l)

*As validated by the binomial test, an approximate LC₅₀ for this data is also 0.36 mg/l (0.30 - 0.42). = 360 ppb

validation Category Rationale: Satisfies core data requirements.

Category Repairability/Rationale: NA

Abstract: Five groups of rainbow trout (@ 2 months of age were tested: 1, 0.56, 0.32, 0.18, and 0.1 ppm. Mortalities occurred at

the 3 highest; 3, 10 and 10, respectively. Dissolved O_2 was 8.7 and the pH ranged from 7.53 to 7.41 after 96 hr. Toxic symptoms included dark discoloration, mucous shedding, gyrating, erratic and inverted swimming, gulping air and labored respiration.

9001 data 1.00, 0.56, 0.32, 0.18, 0.10
9002 data 10, 10, 10, 10, 10
9003 data 10, 10, 3, 0, 0
run

3/12/79

Rainbow Trout
96 hr. LC₅₀

79/03/12. 13.38.15.
BASIC PROGRAM A78LC50

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*****  
CGNC. ppm    NUMBER    NUMBER    PERCENT    BINOMIAL  
             EXPOSED    DEAD      DEAD      PROB. (PERCENT)  
1            10           10        100        9.76563E-2  
.56          10           10        100        9.76563E-2  
.32          10           3         30.        17.1875  
.18          10           0         0          9.76563E-2  
.1           10           0         0          9.76563E-2
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THE BINOMIAL TEST SHOWS THAT .18 AND .56 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 .363605

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.
