

US EPA ARCHIVE DOCUMENT



E9001448

Shaughnessy #103394

DATA EVALUATION RECORD

1. CHEMICAL: Streptomycin Sulfate
2. TEST MATERIAL: Agri-Strep: Streptomycin Sulfate: 21.2%  
Inert ingredients: 78.8%
3. TEST TYPE: Acute Toxicity for Freshwater Fish - Trout
4. STUDY IDENTIFICATION: Fish Toxicity Laboratory Report,  
Animal Biology Laboratory, EPA-PR, ARC, Beltsville, Md.  
I.D. Number: MB283 February 23, 1981.  
MRID: 103394
5. REVIEWED: Carol J. Belew, Biologist *Carol J. Belew*  
EFED/EEB
6. APPROVED: Les Touart, Section Head *LT*  
EFED/EEB *6/16/92*
7. CONCLUSIONS: This study is scientifically sound and fulfills the requirements for a core study. The study indicates that Streptomycin is practically non-toxic Rainbow Trout. The LC<sub>50</sub> was determined to be above 180 ppm.
8. RECOMMENDATIONS: NA
9. BACKGROUND: NA
10. METHODS AND MATERIALS:
  - A. Test Organisms: Trout (Salmo gairdnerii - currently Oncoirhynchus mykiss)  
Age/stage of maturity: Not provided  
Size: Average length = 38.7 mm and Average weight = .48 grams.  
Source: Wytheville National Fish Hatchery
  - B. Dosage Form:  
Solvents/vehicles: None  
Route of administration: In solution
  - C. Referenced Protocol  
Test level: 180, 100 and 56 ppm.  
Holding/acclimation: The test organisms were held for a ten day observation period and were acclimated for three days just prior to testing.  
Number per level: 20  
Feeding: Not reported

US EPA ARCHIVE DOCUMENT



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Physical condition: The fish appeared to be in good physical condition at test initiation.

Test Condition

Temperature: 55°F

Dissolved oxygen: 6.0 ppm

pH/hardness: pH = 7.0, hardness: 51.3 ppm

Source of dilution water: Demineralized water

1,000,000 ohms resistivity reconstituted to U.S. Fish and Wildlife Service Standard.

Test vessels: 5 gallon glass jar.

Static/Renewal/Flo-through: static

Loading:

Aeration: No

Photoperiod: Not reported

Controls: Not reported.

Measured test levels: 180, 100, and 56 ppm.

Observation period: 96 hours

Statistical methods: No statistical analysis was necessary because the LC50 was determined to be higher than the highest tested dose.

11. REPORTED RESULTS:

Effects criteria: Mortality, and abnormal physical and behavior characteristics.

LC<sub>50</sub>: 180 ppm

NOEL: Not reported

Dose response data: Not reported.

Observation period: 96 hours

Test conditions

Temperature: 55°F

Dissolved oxygen: 6.0 ppm

pH/hardness: pH = 7.0, hardness = 51.3 ppm

12. STUDY AUTHOR'S CONCLUSIONS/QUALITY ASSURANCE MEASURES:

Agri-Strep can not be expected to kill rainbow trout at a concentration of 180 ppm formulation within 96 hours of exposure. The study was performed by USDA- Beltsville, therefore, the Quality Assurance Statement is not required.

13. REVIEWER'S DISCUSSION AND INTERPRETATION OF THE STUDY:

- A. Test Procedures: The study was scientifically sound and fulfills the EPA guideline requirements.
- B. Statistical Analysis: Statistical analysis was necessary because the LC50 was determined to be higher than the highest dose tested.
- C. Discussion/Results: The study was scientifically sound and fulfills the EPA requirements for a core study. The LC50 was determined to be higher than the highest dose level tested of 180 ppm.

- D. Adequacy of Test:
1. Validation Category: Core
  2. Rationale:
  3. Repairability:

13. COMPLETION OF ONE-LINER FOR TEST: