1 - EEB-05B
11/22/96

DRAFT

MRID No. 440031-02

DATA EVALUATION RECORD
§ 72-1 -- ACUTE LC_{50} TEST WITH A COLDWATER FISH

1. **CHEMICAL:** Zinc Silicate + Silver (TLF-8227)   **PC Code No.:** 008103 & 072501

2. **TEST MATERIAL:** TLF-8227   **Purity:** 0.80% $ZnSiO_3$
   0.91% Ag
   98.29% Inerts

3. **CITATION:**

   Author: G.C. Kreamer

   Title: Static, Acute, 96-Hour LC_{50} of TLF-8227 to Rainbow Trout, *Oncorhynchus mykiss*

   Study Completion Date: March 14, 1994

   Laboratory: Haskell Laboratory for Toxicology and Industrial Medicine, Newark, DE

   Sponsor: E.I. du Pont de Nemours and Company, Newark, DE

   Laboratory Report ID: 507-93

   MRID No.: 440031-02

   DP Barcode: D230591

4. **REVIEWED BY:** Max A. Feken, M.S., Environmental Toxicologist, KBN Engineering and Applied Sciences, Inc.,

   Signature: _(signature)_   **Date:** 11/20/96

   APPROVED BY: Pim Kosalwat, Ph.D., Senior Scientist, KBN Engineering and Applied Sciences, Inc.,

   Signature: P. Kosalwat   **Date:** 11/20/96

5. **APPROVED BY:**

   Signature: **Date:**

6. **STUDY PARAMETERS:**

   Age or Size of Test Organism: Average of 0.47 g

   Definitive Test Duration: 96 hours

   Study Method: Static

   Type of Concentrations: Nominal

7. **CONCLUSIONS:** This study is scientifically sound but does not meet the guideline requirements for an acute toxicity test using a freshwater fish. The 96-hour LC_{50} for rainbow trout exposed to TLF-8227 was 7.5 ppm, which classifies this formulation as moderately toxic to the rainbow trout.

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MAX FEKEN   TLF-8227   RAINBOW TROUT   11-15-96
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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(PERCENT)
17.3	20	20	100	9.536742E-05
10.4	20	16	80	.5908966
6.2	20	6	30	5.765915

THE BINOMIAL TEST SHOWS THAT 0 AND 10.4 CAN BE
USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT
CONFIDENCE LIMITS, BECAUSE THE ACTUAL CONFIDENCE LEVEL
ASSOCIATED WITH THESE LIMITS IS GREATER THAN 95 PERCENT.

AN APPROXIMATE LC50 FOR THIS SET OF DATA IS 7.589978

RESULTS CALCULATED USING THE MOVING AVERAGE METHOD

SPAN	G	LC50	95 PERCENT CONFIDENCE LIMITS	
1	.3741936	7.589978	5.963761	9.030158

RESULTS CALCULATED USING THE PROBIT METHOD

ITERATIONS	G	H	GOODNESS OF FIT PROBABILITY
3	.220095	1	.6070521

SLOPE   =   6.66059
95 PERCENT CONFIDENCE LIMITS = 3.535823   AND   9.785358

LC50 =   7.531195
95 PERCENT CONFIDENCE LIMITS = 6.198458 AND 8.737401

LC10 =   4.85501
95 PERCENT CONFIDENCE LIMITS = 2.942174 AND 5.970778
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