

US EPA ARCHIVE DOCUMENT

1 - ZEB-08C  
6/26/98

MRID No. 438646-18

**DATA EVALUATION RECORD**  
**S 72-1 - ACUTE LC<sub>50</sub> TEST WITH A WARMWATER FISH**

1. **CHEMICAL:** Omadine® Sulfonic Acid **PC Code No.:** 088002

2. **TEST MATERIAL:** Pyridine-N-oxide-2-sulfonic acid (98.5%)  
(Omadine® sulfonic acid)

3. **CITATION:**

**Authors:** T.J. Ward, P.L. Kowalski, and R.L. Boeri  
**Title:** Acute Toxicity of Omadine® Sulfonic Acid  
(Pyridine-N-oxide-2-sulfonic acid) to the  
Fathead Minnow, *Pimephales promelas*

**Study Completion Date:** April 7, 1994

**Laboratory:** T.R. Wilbury Laboratories, Inc.,  
Marblehead, MA

**Sponsor:** Olin Corporation, New Haven, CT

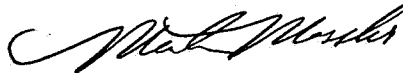
**Laboratory Report ID:** 33-OL

**MRID No.:** 438646-18

**DP Barcode:** D239429

4. **REVIEWED BY:** Mark Mossler, M.S., Toxicologist,  
Golder Associates Inc.

**Signature:**



**Date:** 6/25/98

**APPROVED BY:** Pim Kosalwat, Ph.D., Senior Scientist,  
Golder Associates Inc.

**Signature:**



**Date:** 6/25/98

5. **APPROVED BY:**

**Signature:**

**Date:**

6. **STUDY PARAMETERS:**

**Age or Size of Test Organism:** 34 mm  
**Definitive Test Duration:** 96 hours  
**Study Method:** Flow-through  
**Type of Concentrations:** Mean measured

7. **CONCLUSIONS:** This study is scientifically sound and fulfills the guideline requirements. A 96-hour LC<sub>50</sub> of 58.8 ppm ai classifies Omadine® sulfonic acid as slightly toxic to the fathead minnow.

**Results Synopsis**

LC<sub>50</sub>: 58.8 ppm ai  
NOEC: 48.7 ppm ai

95% C.I.: 48.7 - 71.0 ppm ai  
Probit Slope: N/A

Mossler Omadine sulfonic acid Pimephales promelas 6-4-98

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CONC.	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB. (PERCENT)
118	20	20	100	9.536742E-05
71	20	20	100	9.536742E-05
48.7	20	0	0	9.536742E-05
31	20	0	0	9.536742E-05
18.4	20	0	0	9.536742E-05

THE BINOMIAL TEST SHOWS THAT 48.7 AND 71 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 58.8022

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.

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