

TRADE SECRET

Study Title

H-24159: Static, Acute, 96-Hour Screening Test with *Pimephales
promelas*

Laboratory Project ID: DuPont-4594

AUTHOR: Robert A. Hoke, Ph.D.

STUDY COMPLETED ON: August 30, 2000

PERFORMING LABORATORY: E.I. du Pont de Nemours and Company
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WORK REQUEST NUMBER: [REDACTED]

STUDY CODE NUMBER: [REDACTED]

Company Sanitized. Does not contain TSCA CBI

STUDY INFORMATION

Substance Tested: [REDACTED]

Synonyms/Codes: [REDACTED]

- H-24159

Haskell Number: 24159

Composition: [REDACTED]

Known Impurities: [REDACTED]

Physical Characteristics: [REDACTED]

Stability: The test substance appeared to be stable under the conditions of the study; no evidence of instability was observed.

Sponsor: E. I. du Pont de Nemours and Company
Wilmington, Delaware 19898
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In-Life Initiated/Completed: August 14, 2000 / August 18, 2000

Company Sanitized. Does not contain TSCA CBI

SUMMARY

The acute toxicity of H-24159 to the fathead minnow, *Pimephales promelas*, was determined in an unaerated, 96-hour, static test.

The study was conducted with 4 concentrations of H-24159 and a dilution water control at a mean temperature of 22.1°C (range of 22.0-22.1°C). One test chamber was used per test concentration with 10 test organisms in each chamber. Based on visual observations, the water control and the 1 and 10 mg/L test concentrations were clear and colorless at test start. The 100 mg/L test concentration was clear and colorless with an oily surface film, and the 1000 mg/L test concentration was cloudy with an oily surface film. All water quality parameters were within acceptable limits during the exposure, with the exception of the pH in the 1000 mg/L test concentration. The pH in the 1000 mg/L test concentration was lower than the pH measurements for the water control and the other test concentrations at test start.

Exposure of H-24159 to the water control and nominal H-24159 concentrations of 1, 10, 100, and 1000 mg/L resulted in 0, 0, 0, 0, and 100% mortality, respectively, at the end of 96 hours. No mortality or sublethal effects were seen in the water control test organisms. The highest nominal concentration causing no mortality at test end was 100 mg/L. The lowest nominal concentration causing 100% mortality at test end was 1000 mg/L. Nominal H-24159 concentrations were used for calculation of LC₅₀ values.

The results are summarized as follows:

Nominal concentrations of H-24159, mg/L	dilution water control, 1, 10, 100, and 1000
96-hour LC ₅₀ for H-24159, based on nominal concentrations, mg/L ^a	316 (100 to 1000)

H-24159 exhibited low concern for aquatic hazard^b in an unaerated, 96-hour, static acute test using the fathead minnow, *Pimephales promelas*.

^a Stephan, C.E. (1997). Methods for calculating an LC₅₀. *Aquatic Toxicology and Hazard Evaluation, Proceedings of the First Annual Symposium on Aquatic Toxicology, ASTM Special Publication 634* (F.L. Mayer and J.L. Hamelink, Eds.), pp 65-84. Philadelphia.

^b Smrcek, J., Clements, R., Morcock, R., and Rabert, W. (1993). Assessing ecological hazard under TSCA: methods and evaluation of data. *Environmental Toxicology and Risk Assessment, ASTM STP 1179*. (W.G. Landis, J.S. Hughes, and M.A. Lewis, Eds.), pp 22-39. American Society for Testing and Materials, Philadelphia.

CERTIFICATION

We, the undersigned, declare that this report provides an accurate evaluation of data obtained from this study.

Work Completed by: Laurie D. Bouchelle 30 August 2000
Laurie D. Bouchelle
Associate Scientist
Date

Work Completed by: Daniel J. C. Peterson 30 August 2000
Daniel J. C. Peterson, B.S.
Associate Scientist
Date

Issued by Study Director: Robert A. Hoke 30 August 2000
Robert A. Hoke, Ph.D.
Senior Research Scientist
Date

TABLE 1

DISSOLVED OXYGEN AND pH OF TEST AND CONTROL SOLUTION SAMPLES

Nominal H-24159 Concentration (mg/L)	Test Initiation (0 hours)		Test Completion (96 hours)	
	Dissolved Oxygen (mg/L)	pH	Dissolved Oxygen (mg/L)	pH
Water Control	8.8	7.6	6.8	7.6
1.0	8.7	7.6	6.7	7.6
10	8.7	7.5	7.0	7.6
100	8.7	7.3	5.4	7.3
1000	8.7	5.8	7.7 ^a	6.1 ^a

a Measurement taken at 24 hours due to total mortality.

TABLE 2

MORTALITY OF *Pimephales promelas*, IN AN UNAERATED, STATIC, ACUTE, 96-HOUR
TEST WITH H-24159

Nominal H-24159 Concentration (mg/L)	Number of Dead Test Organisms / Number of Test Organisms at Study Start			
	24 Hours	48 Hours	72 Hours	96 Hours
Water Control	0/10	0/10	0/10	0/10
1.0	0/10	0/10	0/10	0/10
10	0/10	0/10	0/10	0/10
100	0/10	0/10	0/10	0/10
1000	10/10	10/10	10/10	10/10

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