

TRADE SECRET

Study Title

H-24516: Static, Acute, 96-Hour Screening Test
with *Pimephales promelas*

Laboratory Project ID: DuPont-4725

AUTHOR: Robert A. Hoke, Ph.D.

STUDY COMPLETED ON: September 26, 2000

PERFORMING LABORATORY: E.I. du Pont de Nemours and Company
Haskell Laboratory for Toxicology and Industrial Medicine
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[REDACTED]

Company Sanitized. Does not contain TSCA CBI

STUDY INFORMATION

Substance Tested:

Synonyms/Codes:

Haskell Number:

24516

Composition:

Known Impurities:

Physical Characteristics:

Pale to medium tan waxy solid

Stability:

The test substance appeared to be stable under the conditions of the study.

Sponsor:

E.I. du Pont de Nemours and Company
Wilmington, Delaware 19898
U.S.A.

In-Life Initiated/Completed:

September 11, 2000/September 15, 2000

Company Sanitized. Does not contain TSCA CRI

SUMMARY

The acute toxicity of H-24516 to the fathead minnow, *Pimephales promelas*, was determined in an unaerated, 96-hour, static test.

The study was conducted with 4 concentrations of H-24516 and a dilution water control at a mean temperature of 22.1°C (range of 21.9-22.1°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, 10, 100, and 1000 mg/L test concentrations were clear and colorless with undissolved H-24516 visible in all of the test concentrations at test start. All water quality parameters were within acceptable limits during the exposure (Table 1).

Exposure of fathead minnows to the water control and nominal H-24516 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 (Table 2). 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 mean, nominal concentration causing 100% mortality at test end was 1000 mg/L. Nominal H-24516 concentrations were used for calculation of the LC₅₀ value. The 96-hour LC₅₀ value, based on nominal concentrations of H-24516, was 316 mg/L.

The results are summarized as follows:

Nominal concentrations of H-24516, mg/L	dilution water control, 1, 10, 100, and 1000
96-hour LC ₅₀ for H-24516, based on nominal concentrations, mg/L ^a	316 (100 to 1000)

H-24516 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 Smrchek, 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

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

Work Completed by: Laurie D. Bouchelle 26 Sept. 2000
Laurie D. Bouchelle
Associate Scientist
Date

Work Completed by: Daniel J.C. Peterson 26 Sept. 2000
Daniel J.C. Peterson
Associate Scientist
Date

Issued by Study Director: Robert A. Hoke 26 September 2000
Robert A. Hoke, Ph.D.
Senior Research Scientist
Date

TABLE 1

DISSOLVED OXYGEN AND pH OF CONTROL AND H-24516 TEST SOLUTIONS

Nominal H-24516 Concentration (mg/L)	Test Initiation (0 hours)		Test Completion (96 hours)	
	Dissolved Oxygen (mg/L)	pH	Dissolved Oxygen (mg/L)	pH
Water Control	8.7	7.8	7.0	7.3
1.0	8.7	7.7	7.0	7.4
10	8.7	7.7	7.1	7.4
100	8.7	7.9	6.9	7.5
1000	8.4	7.5	7.2 ^a	7.6 ^a

a Measurement taken at 48 hours due to total mortality

TABLE 2

MORTALITY OF *Pimephales promelas*, IN AN UNAERATED, STATIC, ACUTE, 96-HOUR
TEST WITH H-24516

Nominal H-24516 Concentration (mg/L)	Number Dead/ Number 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	0/10	10/10	10/10	10/10

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