

TRADE SECRET

Study Title

**H-24516: Static, Acute, 48-Hour Screening Test to
Daphnia magna**

Laboratory Project ID: DuPont-6010

AUTHOR: Robert A. Hoke, Ph.D.

STUDY COMPLETED ON: March 12, 2001

**PERFORMING LABORATORY: E.I. du Pont de Nemours and Company
Haskell Laboratory for Toxicology and Industrial Medicine
1090 Elkton Road, P.O. Box 50
Newark, Delaware 19714-0050**

[REDACTED]
[REDACTED]

STUDY INFORMATION

Substance Tested: [REDACTED]

Synonyms/Codes: [REDACTED]

• H-24516

Haskell Number: 24516

Composition: [REDACTED]

Purity: [REDACTED]

Known Impurities: [REDACTED]

Physical Characteristics: Pale to medium tan waxy solid

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

Solubility: Negligible in water

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

Study Initiated/Completed: February 20, 2001/March 12, 2001

In-Life Initiated/Completed: February 20, 2001/February 22, 2001

SUMMARY

The acute toxicity of H-24516 to the water flea, *Daphnia magna* (less than 24 hours old), was determined in an unaerated, 48-hour, static test.

The study was conducted with 4 concentrations of H-24516 and a dilution water control at a mean temperature of 20.0°C (range of 19.9-20.1°C). One test chamber was used per test concentration with 10 test organisms in each chamber. Based on visual observations, the water control and all test concentrations were clear and colorless with undissolved test material visible in all test chambers except the water control at test start. All water quality parameters were within acceptable limits during the exposure.

Exposure of daphnids to the water control and nominal H-24516 concentrations of 1, 10, 100, and 1000 mg/L resulted in 10, 10, 0, 30, and 50% immobility, respectively, at the end of 48 hours. Nominal H-24516 concentrations were used for calculation of EC₅₀ values.

The results are summarized as follows:

Nominal concentrations of H-24516, mg/L	dilution water control, 1, 10, 100, and 1000
48-hour EC ₅₀ (95% confidence interval) for H-24516, based on nominal concentrations, mg/L ^a	965 (576 to 3139)

H-24516 exhibited low concern for aquatic hazard^b in an unaerated, 48-hour, static acute test using the water flea, *Daphnia magna* (less than 24 hours old).

^a SAS® User's Guide, *The PROBIT Procedure*, SAS Institute Inc., Cary, North Carolina. pp. 639 - 646.

^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

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

Work Completed by: Daniel J. Peterson 12 - March - 2001
Daniel J. Peterson, B.S. Date
Associate Scientist

Issued by Study Director: Robert A. Hoke 12 March 2001
Robert A. Hoke, Ph.D. Date
Senior Research Scientist

TABLE 1

DISSOLVED OXYGEN AND pH OF TEST AND CONTROL SOLUTION SAMPLES

Nominal H-24516 Concentration (mg/L)	Test Initiation (0 hours)		Test Completion (48 hours)	
	Dissolved Oxygen (mg/L)	pH	Dissolved Oxygen (mg/L)	pH
Water Control	8.8	7.4	8.7	7.5
1	8.8	7.4	8.8	7.5
10	8.8	7.5	8.8	7.6
100	8.7	7.4	8.8	7.6
1000	8.7	7.3	8.8	7.5

TABLE 2

IMMOBILITY OF *Daphnia magna*, IN AN UNAERATED, STATIC, ACUTE, 48-HOUR TEST
WITH H-24516

Nominal H-24516 Concentration (mg/L)	Number Immobile / Number at Study Start	
	24 Hours	48 Hours
Water Control	0/10	1/10
1	0/10	1/10
10	0/10	0/10
100	0/10	3/10
1000	1/10	5/10