

AR226-3248

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**TRADE SECRET*****Study Title***

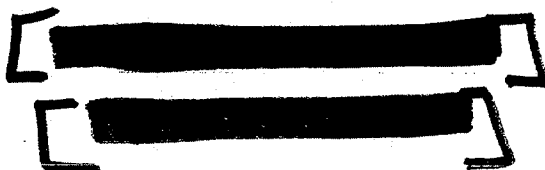
H-24616: Static, Acute, 96-Hour Screening Test to  
*Pimephales promelas*

Laboratory Project ID: DuPont-6818

**AUTHOR:** Daniel J. Peterson, B.S.

**STUDY COMPLETED ON:** July 11, 2001

**PERFORMING LABORATORY:** E.I. du Pont de Nemours and Company  
Haskell Laboratory for Health and Environmental Sciences  
Elkton Road, P.O. Box 50  
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Company Sanitized. Does not contain TSCA CBI

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### CERTIFICATION

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

Work Completed by:

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Daniel J. Peterson, B.S.  
Associate Scientist

*11 July 2001*

Date

Issued by Study Director:

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Robert A. Hoke, Ph.D.  
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*11 July 2001*

Date

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**STUDY INFORMATION**

Substance Tested: [REDACTED]

Synonyms/Codes: • H-24616  
[REDACTED]

Haskell Number: 24616

Purity: [REDACTED]

Known Impurities: [REDACTED]

Physical Characteristics: Opaque tan liquid

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

Study Initiated/Completed: June 25, 2001 / July 11, 2001

In-Life Initiated/Completed: June 25, 2001 / June 29, 2001

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## SUMMARY

The acute toxicity of H-24616 to the fathead minnow, *Pimephales promelas*, was determined in an unaerated, 96-hour, static test.

The study was conducted with 4 concentrations of H-24616 and a dilution water control at a mean temperature of 20.7°C (range of 20.7-20.8°C). One test chamber was used per test concentration with 10 test organisms in each chamber. Based on visual observations, the water control and 1, 10, and 100 mg/L test concentrations were clear and colorless at test start. The 1000 mg/L concentration was cloudy at test start. All water quality parameters were within acceptable limits during the exposure.

Exposure of fathead minnows to the water control and nominal H-24616 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-24616 concentrations were used for calculation of LC<sub>50</sub> values.

The results are summarized as follows:

|                                                                                                                    |                                              |
|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| Nominal concentrations of H-24616, mg/L                                                                            | dilution water control, 1, 10, 100, and 1000 |
| 96-hour LC <sub>50</sub> (95% confidence interval) for H-24616, based on nominal concentrations, mg/L <sup>a</sup> | 316 (100 to 1000)                            |

H-24616 exhibited low concern for aquatic hazard<sup>b</sup> in an unaerated, 96-hour, static, acute test using the fathead minnow, *Pimephales promelas*.

<sup>a</sup> Stephan, C.E. (1997). Methods for calculating an LC<sub>50</sub>. *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.

<sup>b</sup> 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, PA.

TABLE 1

DISSOLVED OXYGEN AND pH OF TEST AND CONTROL SOLUTION SAMPLES

| Nominal<br>H-24616<br>Concentration<br>(mg/L) | Test Initiation (0 hours)     |     | Test Completion (96 hours)    |                  |
|-----------------------------------------------|-------------------------------|-----|-------------------------------|------------------|
|                                               | Dissolved<br>Oxygen<br>(mg/L) | pH  | Dissolved<br>Oxygen<br>(mg/L) | pH               |
| Water Control                                 | 9.0                           | 7.4 | 7.7                           | 7.4              |
| 1                                             | 9.0                           | 7.3 | 6.9                           | 7.3              |
| 10                                            | 9.0                           | 7.3 | 7.2                           | 7.3              |
| 100                                           | 9.0                           | 7.2 | 7.3                           | 7.3              |
| 1000                                          | 8.9                           | 7.2 | 7.9 <sup>a</sup>              | 7.2 <sup>a</sup> |

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-24616

| Nominal<br>H-24616<br>Concentration<br>(mg/L) | Number Dead /<br>Number at Study Start |          |          |          |
|-----------------------------------------------|----------------------------------------|----------|----------|----------|
|                                               | 24 Hours                               | 48 Hours | 72 Hours | 96 Hours |
| Water Control                                 | 0/10                                   | 0/10     | 0/10     | 0/10     |
| 1                                             | 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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