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Shell Oil Company



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April 7, 1994



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OFFICE OF POLLUTION
PREVENTION AND TOXICS
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Document Processing Center (TS-790)
Office of Toxic Substances
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460
ATTN: 8(e) Coordinator

Dear Sir:

SUBJECT: PRELIMINARY AQUATIC TOXICITY OF NEODOL® 45-13 (CAS# 68951-67-7)

The following information is submitted under TSCA 8(e).

1. The 96-hr LC₅₀ in fathead minnow and the 48-hr EC₅₀ in Daphnia Magna was between 1 and 4 mg/L based on nominal concentrations in a preliminary rangefinder study.
2. The 96-hr EC₅₀ in Selenastrum capricornutum was between 0.01 and 0.10 mg/L based on nominal concentrations in a preliminary rangefinder study.

Attached is a copy of the preliminary data transmission from the contractor, Springborn Laboratories. The complete report will be sent to the Agency when available.

This report is filed to provide information EPA may find useful. In no way is it intended as a waiver of any rights or privileges belonging to Shell Oil Company as the reporting corporation, its agents or employees. The reporting corporation, its agents and employees, reserve the right to object to this report's use or admissibility in any subsequent judicial or administrative proceeding against the corporation, its agents or employees.

This report has been compiled based on information available as of the date of filing. The corporation, its agents and employees reserve the right to supplement the data contained in this report, and to revise and amend any conclusions drawn therefrom.

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60 pgs.

This report contains no confidential business information. (2)

The following person should be contacted if you have questions or a need for discussion.

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Very truly yours,



R. N. Shulman, General Manager
Health, Safety, and Environment
Shell Oil Company

THG/sjh

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PS&C D File

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Table 1. Nominal concentrations tested, corresponding cumulative percent mortality and observations made at the 24-, 48-, 72- and 96-hour observation intervals during the preliminary range-finding exposure of fathead minnow (*Pimephales promelas*) to Neodol 45-13.

Nominal Concentration (mg/L)	Cumulative Mortality (%)			
	24-Hour	48-Hour	72-Hour	96-Hour
Control	0	0	0	0
1.0	0	0	0	0
4.0	100	100	100	100
10	100	100	100	100
40	100	100	100	100
100	100	100	100	100
400	100	100	100	100

Proposed Definitive Test Concentration Range: 4.0, 2.4, 1.4, 0.86, and 0.52 mg/L, plus control

Table 2.

Nominal concentrations tested, corresponding cumulative percent of immobilized organisms and observations made during the preliminary range-finding exposure of daphnids (*Daphnia magna*) to Needol 45-13.

Nominal Concentration (mg/L)	Cumulative Percent of Immobilized Organisms	
	24-Hour	48-Hour
Control	0	0
0.10	0	0
0.40	0	0
1.0	0	0
4.0	80 ^a	100

^aAll of the surviving daphnids exhibited erratic swimming behavior and were on the bottom of the exposure vessels.

Proposed Definitive Test Concentration Range: 4.0, 2.4, 1.4, 0.86, and 0.52 mg/L, plus control

Springborn Laboratories, Inc.

Environmental Sciences Division

790 Main Street • Wareham, Massachusetts 02571 • (508) 295-2550 • Telex 4436041 • Facsimile (508) 295-8107

14 March 1993

Diana C. L. Wong
 Shell Development Company
 Westhollow Research Center
 3333 Highway 56, South
 Houston, Texas 77001

RE: Summary of Algal Preliminary Test Results with Neodol 45-13 and Neodol 25-12

Dear Diana:

Below is a summary of the results of the preliminary test exposing *Selenastrum capricornutum* to Neodol 45-13 and Neodol 25-12.

NEODOL 45-13
 96-Hour Preliminary Data
 with *S. capricornutum*

Nominal Test Conc. (mg/L)	# of Cells/mL ($\times 10^4$)	Reduction as Compared to Control (%)
1000	0	100
100	0.63	100
10	0.38	100
1.0	4.0	97
0.10	3.8	97
0.010	122	-1.5
Control	120	NA

Based on these results, I suggest the definitive test with Neodol 45-13 be conducted at the following nominal test concentrations: 0.013, 0.025, 0.050, 0.10 and 0.20 mg/L. This concentration range should provide both NOEC and EC50 values.

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