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**TSCA NON-CONFIDENTIAL BUSINESS INFORMATION**

DOCUMENT DESCRIPTION	DOCUMENT CONTROL NUMBER	DATE RECEIVED
8EHQ-92-11468	89110000122	2/24/11

COMMENTS: COMMUN S (DECLASS)

**DOES NOT CONTAIN CBI**



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*MR# 333425*

February 18, 2011

**VIA CERTIFIED MAIL**

Attn: TSCA Declassification Coordinator  
U.S. Environmental Protection Agency  
Office of Pollution Prevention and Toxics  
Document Control Office (7407M)  
Washington, D.C. 20460

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11 FEB 24 PM 1:02

**Re: Declassification Activity-TSCA §8(e) Submission**  
**8EHQ Number: 8EHQ-1092-11468s (Bar Code 88920009749)**  
**Supplemental Submission - Revised Public Copy of Submission**

Dear TSCA Declassification Coordinator:

This submission is submitted in connection with the EPA 2010 CBI Declassification Challenge program.

Please find enclosed a revised public copy of the above-identified submission. Any information still claimed as confidential business information (CBI) in the attached revised public copy has been redacted and replaced by brackets. The originally assigned 8EHQ number has been added by the submitter to the first page of the enclosed revised public copy of the submission. The test substance description, as identified in an Index provided to submitter by EPA, is provided on the Attachment to this letter.

Very truly yours,

Andrea V. Malinowski



Attachment – Test Substance Description (1 page)  
Enclosure – revised public copy of report HLR 359-88

**CONTAINS NO CBI**

**CONTAINS NO CBI**

**CONTAINS NO CBI**

**Attachment**

8EHQ Number: 8EHQ-1092-11468s (Bar Code 88920009749)

Test Substance identified in EPA Index – Mixture of:

CAS Number   Chemical Name

25155-30-0	SODIUM DODECYL BENZENE SULFONATE
96-24-2	SODIUM DI(PERFLUOROALKYL) SULFOSUCCINATE

FOR DU PONT USE ONLY

Du Pont HLR 359-88

Study Title

**Four-Hour Inhalation Approximate Lethal Concentration  
(ALC) of Finish RW-1016 in Rats**

Author

David P. Kelly

Study Completed On

10/20/88

Performing Laboratory

E. I. du Pont de Nemours and Company, Inc.  
Haskell Laboratory for Toxicology and Industrial Medicine  
P. O. Box 50, Elkton Road  
Newark, Delaware 19714

Medical Research No.

8319-001

Laboratory Project ID

Haskell Laboratory Report No. 359-88

GENERAL INFORMATION

Material Tested: Finish RW-1016 Diluted With 50% Water

Medical Research No.: 8319-001

Haskell No.: 17,002

Physical Form: Pale yellow liquid/paste

Composition: 74.1% Ucon 75 H 9500  
20.0% NRD-322 fluorochemical  
5.9% Fluorowet SB (active ingredient)

The above components were tested as a 50% mixture in distilled water

Contaminants: Anionic surfactants

Other Names: RW-1016 Oil Base

Stability: The test material was expected to be stable under the conditions of administration.

Sponsor: Textile Fibers Department  
E. I. du Pont de Nemours and Company, Inc.  
Wilmington, Delaware

Material Submitted By: Richard N. Watson  
Textile Fibers Department  
E. I. du Pont de Nemours and Company, Inc.  
Seaford, Delaware

In-Life Phase Initiated - Completed: 11/19/87-12/7/87

Notebook: E-54715, pp. 92-112.

There are 8 pages in this report.

Distribution: A. H. Roede (2)  
R. N. Watson (1)  
D. P. Kelly/N. C. Chromey (1)

Four-Hour Inhalation Approximate Lethal Concentration (ALC) of  
Finish RW-1016 in Rats

SUMMARY

Groups of 6 male Crl:CD<sup>®</sup>BR rats were exposed for a single, 4-hour period to test atmospheres containing an aerosol of Finish RW-1016 (diluted 50% with water). Under the conditions of this test, the ALC for dilute Finish RW-1016 was 29 mg/M<sup>3</sup> based on dried aerosol concentration. This material is considered to be extremely toxic on an acute inhalation basis (aerosol ALC less than 80 mg/M<sup>3</sup>).

Work by: Robert T. Turner 10/17/88  
Robert T. Turner  
Technician

Thomas A. Kegelman 10/17/88  
Thomas A. Kegelman  
Technician

Study Director: David P. Kelly 10/17/88  
David P. Kelly  
Toxicologist

Approved by: Nancy C. Chromey 10/20/88  
Nancy C. Chromey, Ph.D.  
Manager,  
Acute and Developmental Toxicology Division

Reviewed and Approved for Issue: David P. Kelly 10/20/88  
David P. Kelly  
Study Director

DPK:air:HLR107.5

QUALITY ASSURANCE DOCUMENTATION

STUDY: MR 8519-001  
H# 17,002

Four-Hour Inhalation Approximate Lethal Concentration  
(ALC) of Finish RW-1016 in Rats

Because short-term studies are numerous and routine in nature, representative studies from this test type are audited quarterly to ensure the studies are designed and conducted in compliance with the Good Laboratory Practice Standards.

Reported by:

Stephen W. Records  
Stephen W. Records  
Quality Assurance Auditor

9-15-88  
Date

### Introduction

The purpose of this study was to determine the 4-hour inhalation approximate lethal concentration (ALC) for Finish RW-1016 in male rats. The ALC was defined as the lowest atmospheric concentration that caused the death of one or more rats either on the day of exposure or within 14 days post exposure. This study was conducted according to the applicable EPA Good Laboratory Practice regulations. Areas of noncompliance are documented in the study records. No deviations existed that significantly affected the validity of the study.

### Materials and Methods

#### A. Animal Husbandry

Young adult male Crl:CD®BR rats were obtained from Charles River Breeding Laboratories, Kingston, New York. Each rat was assigned a unique 6-digit identification number which corresponded to a numbered card affixed to the cage. Rats were quarantined for one week prior to testing, and were weighed and observed twice during the quarantine period. During the test, rats were housed in pairs in 8" x 14" x 8" suspended, stainless steel, wire-mesh cages. The rat assigned the lower number in each cage was identified by a slash in the right ear. Prior to exposure, rat tails and cage cards were color-coded with water-insoluble markers so that individual rats could be identified after exposure. Except during exposure, Purina Certified Rodent Chow® #5002 and water were available ad libitum. Environmental conditions of the animal rooms were targeted for a temperature of 23° + 2°C and relative humidity of 50% + 10%. Any excursions outside these ranges were of small magnitude and/or brief duration and did not adversely affect the validity of the study.

#### B. Exposure Protocol

Groups of 6 male rats, 8 weeks old and weighing between 236 and 289 grams were used in this study. During exposures, rats were restrained in perforated, stainless steel cylinders with conical nose pieces. The restrainers were inserted into the face plate of a 29-L glass exposure chamber such that only the nose of each rat protruded into the chamber. Each group was exposed nose-only for a single, 4-hour period to an aerosol

atmosphere of dilute Finish RW-1016 in air. Rats were weighed prior to exposure, and were observed for clinical signs of toxicity during and immediately after exposure. Surviving rats were scheduled to be weighed and observed daily for 14 days post exposure, except during weekends. One group of rats was weighed on the first Saturday and Sunday of the recovery period following an exposure which occurred on a Friday.

C. Atmosphere Generation

It was not possible to generate an aerosol of the finish as originally comprised because of its high viscosity. It was possible to generate an aerosol of a 50% dilution of the finish in distilled water. Aerosols of dilute Finish RW-1016 were generated by pumping the test material with a Harvard model no. 975 infusion pump to a Spraying Systems Nebulizer®. High pressure air, introduced at the nebulizer aerosolized the test material and swept the aerosol particles into a 29-liter glass exposure chamber. A deflector located between the nebulizer and the rat face plate prevented the larger aerosol particles from impacting directly on the rats. In each exposure, chamber atmospheres were exhausted through a cold trap and a MSA cartridge filter prior to discharge into a fume hood.

D. Analytical

The atmospheric particulate concentration of dilute Finish RW-1016 was determined at approximately 30-minute intervals by gravimetric analysis. Known volumes of chamber atmosphere were drawn through preweighed Gelman® glass fiber filters. The filters were then dried overnight in a desiccator and weighed on a Cahn® Model No. 28 Automatic Electrobalance. The atmospheric particulate concentrations of dilute Finish RW-1016 were calculated from the pre- and post-sampling filter weights.

Airborne particle size (mass median aerodynamic diameter and percent of mass less than 10 micrometers aerodynamic diameter) was determined with a Sierra Series 210 Cascade Impactor during each exposure. During each exposure, chamber temperature was measured with a mercury thermometer, relative humidity was measured with a Bendix Model 566 Psychrometer and chamber oxygen concentration was measured with a Biosystems Industries Inc., Model 3100R oxygen monitor.

E. Records Retention

All raw data and the final report will be stored in the archives of Haskell Laboratory for Toxicology and Industrial Medicine, Newark, Delaware, or in the DuPont Records Management Center, E. I. du Pont de Nemours and Company, Inc., Wilmington, Delaware.

RESULTSA. Exposure Conditions and Associated Mortality

During the exposures, chamber temperature ranged from 21 to 22°C, relative humidity ranged from 38 to 44%, and chamber oxygen concentration was 21%. Atmospheric characterization and associated rat mortality data are summarized below.

<u>Chamber Dry Aerosol Concentration (mg/M<sup>3</sup>)</u>			<u>Aerosol Particle size</u>		<u>Mortality</u>
<u>Mean</u>	<u>S.D.</u>	<u>Range</u>	<u>% &lt; 10 <math>\mu</math>m<sup>a</sup></u>	<u>MMD(<math>\mu</math>m)<sup>b</sup></u>	<u>#Death:/#Exposed</u>
23	15	2.0 - 48	95	2.2	0/6
29	16	8.0 - 48	90	2.9	3/6
170	40	110 - 210	89	3.0	6/6

<sup>a</sup> Percent by weight of particles with aerodynamic diameters less than 10  $\mu$ m.

<sup>b</sup> Mass median aerodynamic diameter in micrometers.

B. Clinical Observations

During exposures, rats from all exposure groups had red nasal discharge, a clinical sign that is common for rats held in restrainers. Rats in the 23 mg/M<sup>3</sup> exposure group responded to sound, however at higher concentrations there was a decreased response to sound.

Upon release from their restrainers rats in the 23 mg/M<sup>3</sup> exposure group showed slight red nasal and ocular discharge. Rats in the 29 mg/M<sup>3</sup> group had compound-stained faces and slight red ocular and nasal discharge. Four of the 6 rats exposed to 170 mg/M<sup>3</sup> died during exposure. The other 2 surviving rats showed labored breathing, hunched posture, and dark eyes immediately after exposure and then died overnight. All deaths occurred within 24 hours of exposure.

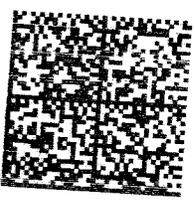
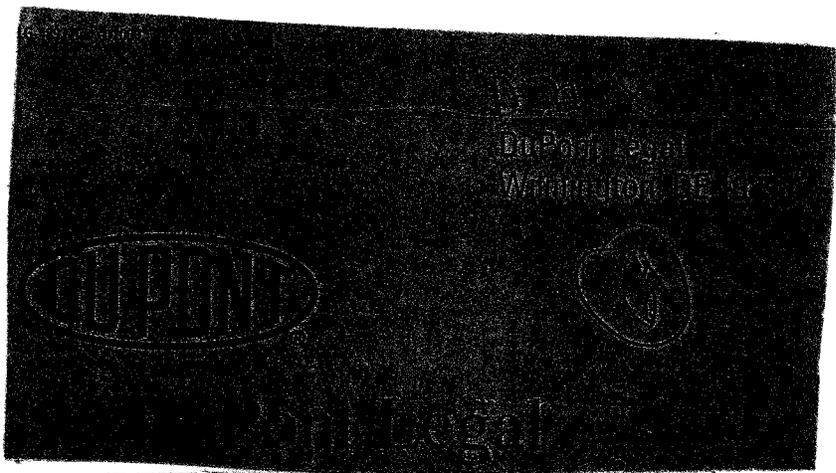
There was no dose-related weight loss trend seen in the rats that survived exposure. Rats either gained weight or lost slight to moderate\* amounts of weight on the first day of recovery. No other adverse clinical signs were seen throughout the remainder of the recovery period.

#### CONCLUSIONS

Under the conditions of this study, the 4-hour ALC for dilute Finish RM-1016 (50% mixture with water) was 29 mg/M<sup>3</sup> based on dried aerosol concentration. As an aerosol this material is considered to be extremely toxic on an acute inhalation basis (aerosol ALC less than 80 mg/M<sup>3</sup>). This finish contains NRD 322 as a component. In previous tests at Haskell Laboratory (for example HLR 22-86), aerosolized finishes containing this component have produced similar toxicity results (highly to extremely toxic) in rats by the inhalation testing route.

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\* Weight-loss classes are defined as: Slight - < 10 grams, Moderate - 10 to 20 grams, Severe - > 20 grams.



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Haster

\$ 10.650

02/18/2011

Mailed From 19805

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Attn: TSCA Declassification Coordinator

U.S. Environmental Protection Agency  
Office of Pollution Prevention and Toxics  
Document Control Office (7407M)  
Washington, D.C. 20460

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