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DOCUMENT DESCRIPTION	DOCUMENT CONTROL NUMBER	DATE RECEIVED
8EHQ-92-13194	89110000130	2/24/11

COMMENTS: COMMUN S (DECLASS)

DOES NOT CONTAIN CBI



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MR# 333428

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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Re: **Declassification Activity-TSCA §8(e) Submission**
8EHQ Number: 8EHQ-1092-13194s (Bar Code 88920010997)
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 11-86



CONTAINS NO CBI

Attachment

8EHQ Number: 8EHQ-1092-13194s (Bar Code 88920010997)

Test Substance identified in EPA Index – Mixture of:

CAS Number Chemical Name

107-41-7	HEXYLENE GLYCOL
110053-43-5	RX. PRODUCT OF 3-CHLORO-1, 2-PROPANEDIOL WITH TELOMER B ALCOHOL WITH DESMODUR L-2291A
112-00-5	LAURYL TRIMETHYLAMMONIUM CHLORIDE
68551-12-2	POE 915) C-12-16 ALKYL ETHER
7732-18-5	WATER

Revised Public Copy
Originally Assigned 8EHQ Number: 8EHQ-1092-13194s
Company Sanitized - No CBI

FOR DU PONT USE ONLY

Inhalation Approximate Lethal Concentration (ALC) of

MPD-5905-A (Plant Lot #1)

Haskell Laboratory Report No. 11-86

MR No. 7272-001

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

Date Issued: January 13, 1986

Inhalation Approximate Lethal Concentration (A.L.C) of

MPD-5905-A (Plant Lot #1)

SUMMARY

Groups of 6 male CrI:CD⁰(SD)BR rats were exposed to aerosol atmospheres of MPD-5905-A (Plant Lot #1) for a single, 4-hour period. Under the conditions of this test, the ALC for MPD-5905-A (Plant Lot #1) was 78 mg/m³ of particulate. This material is considered extremely toxic on an acute inhalation basis.

Work by:

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Section Supervisor,
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Haskell Laboratory Report No. 11-86

MR No. 7272-001

Haskell No. 15,682

Material Tested:

MPD-5905-A (Plant Lot #1)

Sponsor:

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

Material Submitted By:

W. A. Fintel
Textile Fibers Department
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Test Facility:

E. I. du Pont de Nemours and Company
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P. O. Box 50, Elkton Road
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Study Initiated - Completed:

1/28/85 - 2/25/85

Notebook E-35818, pp. 95-139.

There are 7 pages in this report.

Distribution:

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INTRODUCTION

In a previous test, MPD-5905-A was extremely toxic on an acute inhalation basis (ALC of 76 mg/m³; HLR 2-86). The purpose of this study was to determine a 4-hour inhalation ALC for a sample of MPD-5905-A that was produced during a commercial production run. The ALC was defined as the lowest atmospheric concentration tested that caused the death of 1 or more rats either on the day of exposure or within 14 days post exposure. Except as documented in the study records, this study was conducted according to the applicable Good Laboratory Practice Regulations. None of the deviations noted affected the validity of this study.

MATERIALS AND METHODS

A. Animal Husbandry

Young adult male CrI:CD[®](SD)BR rats were received 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, rats' 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.

B. Exposure Protocol

Groups of 6 rats, 8 weeks old and weighing between 227 and 274 grams, were restrained in perforated, stainless steel cylinders with conical nose pieces. Each group was exposed nose-only for a single, 4-hour period to an aerosol atmosphere of MPD-5905-A (Plant Lot #1) in air. Rats were weighed prior to exposure, and were observed for clinical signs of toxicity during exposure. Surviving rats were weighed and observed daily for 14 days post exposure, weekends included when warranted by the rats' condition.

C. Test Material

Physical Form: Gray liquid

Composition: An aqueous dispersion containing 20.4% solids. The solids consisted of:

- 96% Telomer B carbamate (reaction product of one part 3-chloro-1,2-propanediol plus five parts Telomer B alcohol with Desmodur® L-2291A)
- 3% Arquad 12 dispersing agent
- 1% Merpol® HCS dispersing agent

Contaminants: 490 ppm 3-chloro-1,2-propanediol (MCH)

Synonym: Telomer B carbamate - Version A

Other Code: Plant Lot #1

Stability: The test material was assumed to be stable throughout the exposure phase of the test.

D. Atmosphere Generation

Aerosol atmospheres of MPD-5905-A (Plant Lot #1) were generated by pumping the liquid test material into a Spraying Systems nebulizer. Air introduced at the nebulizer aerosolized the test material, and swept the aerosol stream through a 1-liter glass cyclone elutriator. The cyclone removed large particles by inertial impaction, while aerodynamic particles passed through the cyclone and into the 38-liter glass exposure chamber. For some exposures, additional dilution air was added to the aerosol stream prior to its entering the exposure chamber. The chamber exhaust was drawn through a cold trap and a MSA cartridge filter prior to being discharged into the hood.

E. Analytical

The atmospheric concentration of MPD-5905-A (Plant Lot #1) was determined at approximately 30-minute intervals during each exposure by gravimetric analysis. Calibrated volumes of chamber atmosphere were drawn from the rats' breathing zone through preweighed Gelman® glass fiber filters. Filters were weighed on a Cahn Model 26 Automatic Electrobalance®. The atmospheric concentration of particulate was calculated from the difference between the pre- and post-sampling filter weights.

Particle size (mass median aerodynamic diameter and percent respirable) was determined with a Sierra Series 210 cascade impactor at least once 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 content was measured with a BioMarine® Model 225 oxygen analyzer.

F. 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 Du Pont Hall of Records, E. I. d. Pont de Nemours and Company, Wilmington, Delaware.

RESULTS

A. Exposure Conditions and Associated Mortality

A mist was visible in the chamber during all exposures with the aid of a flashlight and a darkened room. Chamber temperature ranged between 21-23°C, relative humidity ranged from 26-38%, and chamber oxygen content was 21%. Atmospheric characterization and associated rat mortality data are summarized below.

Characterization of MPD-5905-A (Plant Lot #1) Atmospheres and Associated Rat Mortality

Particulate ^a Concentration (mg/m ³)			% Respirable ^b	MMD(um) ^c	Mortality (# deaths/# exposed)
Mean	S.D.	Range			
51	6.1	45 - 62	96	0.90	0/6
78	13	67 - 100	97	0.84	1/6
79	25	49 - 130	98	1.4	0/5
100	8.0	90 - 110	98	0.70	5/6
130	13	100 - 140	>99 ^d	0.38 ^d	6/6

^a Represents the concentration of active ingredients only (water excluded).

^b Percent by weight of particles with aerodynamic diameter less than 10 um.

^c Mass median aerodynamic diameter.

^d Two particle size samples were taken during this exposure. The reported value is an average of the two samples.

One additional exposure was attempted but not completed due to difficulties with the generation system.

B. Clinical Observations

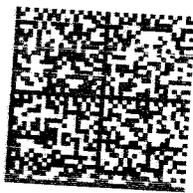
During or immediately following exposure, rats in all groups had red nasal or ocular discharges. Rats exposed to 100 mg/m^3 and rats exposed to 130 mg/m^3 had labored or rapid breathing, lethargy and partially closed eyes. One rat exposed to 78 mg/m^3 and one rat exposed to 130 mg/m^3 died during exposure. In addition, 2 rats exposed to 130 mg/m^3 died within 3 hours after exposure.

During the postexposure period, most rat deaths occurred within 1 day after exposure, although 1 rat exposed to 100 mg/m^3 died 3 days after exposure, and 1 rat exposed to 130 mg/m^3 died 2 days after exposure. Rats that survived exposure to MPD-5905-A (Plant Lot #1) had minimal weight loss (average less than 2% of initial body weight) 1 day after exposure, followed by normal weight gain. Three of 6 rats exposed to 79 mg/m^3 had lung noise 1 day after exposure, and 1 of 5 rats that survived exposure to 78 mg/m^3 had hair loss from the perineal area on the 4th to 14th day after exposure. No other adverse clinical signs were observed in rats that survived exposure to MPD-5905-A (Plant Lot #1). The 1 rat that died 3 days following exposure to 100 mg/m^3 lost 17% of initial body weight and had labored breathing, pallor, yellow-stained perineum and hunched posture before it died. The 1 rat that died 2 days after exposure to 130 mg/m^3 lost 12% of initial body weight and had dry red nasal and ocular discharges before it died.

CONCLUSION

Under the conditions of this study, the ALC for MPD-5905-A (Plant Lot #1) was 78 mg/m^3 of particulate. This material is considered extremely toxic on an acute inhalation basis (ALC less than 80 mg/m^3).

¹ Calculation described in Sierra Instruments, Inc., Bulletin 7-79-219IM, Instruction Manual: Series 210 Ambient Cascade Impactors and CYCLONE Preseparators.



Hasler

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02/18/2011

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Attn: TSCA Declassification Coordinator

U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
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