DuPont Performance Elastomers L.L.C.
300 Bellevue Parkway
Wilmington, DE 19809

DuPont
Performance Elastomers

RECEIVED
OPPT CBIC
2006 NOV 27 AM 11:08

November 21, 2006

Via certified mail
Return receipt requested

MR# 300421

Document Control Office (DCO) (7407M)
Office of Pollution Prevention and Toxics (OPPT)
Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460-0001

CONTAIN NO CBI

ATTN: 8(d) Health and Safety Reporting Rule
(Notification/Reporting)

Dear 8(d) Coordinator:

RE: Docket ID Number EPA-HQ-OPPT-2005-0055
Final Rule: 71 FR 47130 (08.16.06) and as revised 71 FR 54434 (09.15.06)
Voluntary Submission of 2 Reports on CAS number 592-45-0

In response to the above-identified final rule, issued pursuant to section 8(d) of the Toxic Substances Control Act (TSCA), two reports referenced below are voluntarily submitted to EPA. These reports are not required to be submitted under the rule because they do not meet EPA's criteria for reporting under the rule; however, they pertain to a substance listed in the 8(d) rule and may provide useful information to the Agency.

Chemical Name:	1,4-Hexadiene
CAS Number:	592-45-0
Report title:	Oral LD50 Test (HLR 369-71)
Report title:	Inhalation Toxicity (HLR 42-62)

Please note that HLR 42-62 was submitted previously to the TSCA 8(e) Office under the EPA Compliance Audit Program.

Sincerely,

Sheena Sinclair

Sheena Sinclair
Regulatory Affairs Consultant
Agent for DuPont Performance Elastomers

8 6 0 7 0 0 0 0 0 2 3

Enclosures:
- Oral LD50 Test (HLR 369-71) [1 page]
- Inhalation Toxicity (HLR 42-62) [2 pages]

Copies to: M. Louise Marsh (6)

E. I. du Pont de Nemours and Company
Haskell Laboratory for Toxicology and Industrial Medicine

HASKELL LABORATORY REPORT NO. 369-71 MR NO. 1472

Material Tested: 1,4-Hexadiene

Haskell No.: 7258

Material Submitted by: M. Louise Marsh, Elastomer Chemicals Department
Chestnut Run

Other Codes: Monomer C

ORAL LD_{50} TEST

Procedure: The test material, as a solution in corn oil, was administered by intragastric intubation in single doses to each of two groups of young adult ChR-CD male rats, five animals per group. Animals were sacrificed 14 days later.

Results:

Dose (mg/kg)	Average Body Weight (g)	Solution (%)	Average Dose (ml)	Mortality Ratio	Clinical Signs	LD_{50}
20,000	255	50	10.20*	0/5	Wet perineal area, chromodacryorrhea, weakness on day after dosing at 20,000 mg/kg; wet perineal area (2/5) on day after dosing at 10,000 mg/kg; initial weight loss for all animals	> 20,000 mg/kg
10,000	270	50	5.39	0/5		

* Given in divided dose

Summary: 1,4-Hexadiene has low toxicity when administered orally to male rats in single doses. Its LD_{50} for male rats is greater than 20,000 mg/kg of body weight, for none of the five animals that received this dose died.

Report by: Laurel S. Wasileski
Laurel S. Wasileski
Oral Toxicology Section

NB 994, p. 73
LSW:pgh
Date: November 29, 1971

Approved by: Charles F. Reinhardt
Charles F. Reinhardt
Assistant Director

E. I. du Pont de Nemours and Company
Haskell Laboratory for Toxicology and Industrial Medicine

CC: R. G. Arnold (6)

HASKELL LABORATORY REPORT NO. 42-62 MR NO. 585

Material Tested: 1,4-Hexadiene Haskell No.: 2875

Submitted by: R. G. Arnold, Research Division, Elastomer Chemicals Department Other Codes: LRI-159

INHALATION TOXICITY

Method: A syringe drive delivered the compound at a known rate into glass T-tube, which was heated to about 55-60°C. to assist vaporization. A dried air stream carried this vapor into a bell-jar containing four albino ChR-CD male rats.

Nominal Conc. ppm	Exp. Time hrs:min	Mortality Ratio	Clinical Signs	Gross Pathology
60,000	0:44	4/4	During exp.: Rapid and forced respiration with respiratory spasms prior to death; general tremors and unconsciousness. All rats died within 44 minutes.	3/4 Pulmonary congestion (D)* 1/4 Pulmonary edema (D) 4/4 Slight thymus edema & congestion (D) 4/4 Hydronephrosis (D) 4/4 Bladder distension (D) 4/4 Brain edematous (D)
30,000	4:00	1/4	During exp.: Rapid & shallow respiration, general tremors; then labored respiration, and unconsciousness. One rat died within 1.5 hrs. After exp.: Regained consciousness in 0.5 hrs., normal in 1.5 hrs.	2/4 Pulmonary congestion (S)* 1/4 Pulmonary edema (D) 2/4 Focal collapse in lungs (D.S.) 1/4 Bladder distension (D) 1/4 Brain edematous (D)
15,000	4:00	0/4	During exp.: Initial rapid & shallow respiration, recovered in 2 hrs. After exp.: Normal the following morning.	3/4 Pulmonary congestion (S) 2/4 Focal collapse in lungs (S) 3/4 Flaccid liver (S)

* D = died during exposure; S = sacrificed 14 days after exposure

Summary: The Approximate Lethal Concentration of the test compound was found to be 30,000 ppm for rats exposed for four hours. Clinical signs of toxicity included rapid and forced respiration, general tremors and unconsciousness. All deaths occurred during exposure. Rapid recovery was observed in rats which survived the exposure. The clinical signs of toxicity and the necropsy findings of pulmonary congestion, edema of brain and distension of urinary bladder in rats which died during exposure, indicate that central nervous system intoxication may be involved in the toxicity syndrome. Further evaluation of the biological activity of this compound is dependent on completion of histology.

EYE IRRITATION

A sample of undiluted material (0.1 ml) was instilled into both eyes of one albino rabbit. The left eye was washed with tap water after 20 seconds; the right eye was unwashed. Slit-lamp examination after fluorescein staining showed no injury to cornea or iris in either eye for 4 days after treatment. The washed eye showed slight redness of conjunctivae on the day of treatment; the unwashed eye showed mild conjunctival irritation for 24 hours after treatment.

Conclusion: The ALC of 30,000 ppm for rats indicates a low order of toxicity. However, the relatively high vapor pressure of this compound at room temperature (about 170 mm Hg) represents a potential inhalation hazard and inhalation should be avoided.

The material is a temporary conjunctival irritant. Accidental eye contact should not constitute a danger if the contacted eye is washed with water immediately.

Report by: S. D. Morrison
S. D. Morrison, Toxicologist

Approved by: J. Wesley Clayton, Jr.
J. Wesley Clayton, Jr.
Assistant Director

SDM/bhh
June 26, 1962