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E. I. du Pont de Nemours and Company
Haskell Laboratory for Toxicology and Industrial Medicine
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HASKELL LABORATORY REPORT NO. 600-81 [REDACTED]

Material Tested
Octanoic acid, pentadecafluoro-,
ammonium salt*

Haskell No.
12,037

Other Codes
[REDACTED]
C-8

Study Initiated/Completed
4/7/81 - 7/15/81

Material Submitted by
[REDACTED]
CR&D Department
Haskell Lab

LIVER WEIGHT COMPARISON IN CASTRATED AND
OVARIECTOMIZED RATS VS. NORMAL RATS

Procedure: The test material, as a suspension in corn oil, was administered by intragastric intubation in single doses to 3 groups of 10 castrated male and 3 groups of 10 ovariectomized female Crl:CD® rats; this is identified here as a Range-Finding LD50 test.

To evaluate the effect of the compound in the liver weights of rats, 50 male and 50 female Crl:CD® rats were divided into the following groups:

- Gp. (1) Male - control - corn oil
(2) Female - control - corn oil
(3) Male - 200 mg/kg [REDACTED]
(4) Female - 200 mg/kg [REDACTED]
(5) Male - 100 mg/kg [REDACTED]
(6) Female - 100 mg/kg [REDACTED]
(7) Male - control - corn oil - castrated
(8) Female - control - corn oil - ovariectomized
(9) Male - 200 mg/kg [REDACTED] - castrated
(10) Female - 200 mg/kg [REDACTED] - ovariectomized

The test material and corn oil (controls) were administered in the same manner. Rats were weighed and observed during a 14-day recovery period and then sacrificed. Rats (except those in the Range-Finding LD50 study) were sent to Pathology where liver weights were recorded (tissue saved).

Results:

I. Range-Finding LD50 Test

Males: Normal

<u>Dose mg/kg</u>	<u>Average Body Wt.</u>	<u>Suspension %</u>	<u>Average Dose (mL)</u>	<u>Mortality Ratio</u>	<u>LD50</u>
670	248	4.0	4.16	8/10	439 mg/kg
480	251	2.8	4.30	7/10	
200	250	1.2	4.16	0/10	

Castrated

<u>Dose mg/kg</u>	<u>Average Body Wt.</u>	<u>Suspension %</u>	<u>Average Dose (mL)</u>	<u>Mortality Ratio</u>	<u>LD50</u>
670	249	4.0	4.17	8/10	491 mg/kg
480	248	2.8	4.25	5/10	
200	245	1.2	4.08	0/10	

Females: Normal

<u>Dose mg/kg</u>	<u>Average Body Wt.</u>	<u>Suspension %</u>	<u>Average Dose (mL)</u>	<u>Mortality Ratio</u>	<u>LD50</u>
670	174	2.9	4.03	7/10	459 mg/kg
480	172	2.0	4.12	7/10	
200	174	0.8	4.34	0/10	

Ovariectomized

<u>Dose mg/kg</u>	<u>Average Body Wt.</u>	<u>Suspension %</u>	<u>Average Dose (mL)</u>	<u>Mortality Ratio</u>	<u>LD50</u>
670	197	2.9	4.54	9/10	400 mg/kg
480	202	2.0	4.85	8/10	
200	203	1.0	4.06	0/10	

LD50 Confidence Limits:

	<u>Upper</u>	<u>Lower</u>	<u>Slope</u>
Normal Male	554	294	6.1
Castrated Male	619	276	6.7
Normal Female	607	315	5.2
Ovariectomized Female	494	259	7.2

II. Liver Weight Comparison Test

<u>Dose</u> <u>(mg/kg)</u>	<u>Sex</u>	<u>Sex</u> <u>Status</u>	<u>Group Avg.</u> <u>Final Body Wt (g)</u>	<u>Group Avg.</u> <u>Liver Wt.</u>	<u>Liver Wt/</u> <u>Body wt. ratios</u>
Control (Corn Oil)	M	Normal	330	14.84	4.50
Control (Corn Oil)	M	Castrated	337	14.65	4.35
100	M	Normal	331	19.81	5.99
200	M	Normal	329	18.89	5.74
200	M	Castrated	335	15.95	4.76
Control (Corn Oil)	F	Normal	223	9.75	4.37
Control (Corn Oil)	F	Ovariectomized	249	10.22	4.10
100	F	Normal	218	9.94	4.56
200	F	Normal	223	10.37	4.65
200	F	Ovariectomized	239	10.34	4.28

Clinical Signs: Clinical signs (at each dose tested) were similar for all rats whether the rats were surgically modified or not and included: sporadic weight loss, stained perineal area and stained face. No deaths occurred in this phase of the experiment.

Summary: [REDACTED] is moderately toxic when administered orally to young adult Crl:CD¹ male and female rats that were untreated or surgically-modified (ovariectomized or castrated). Its LD50 is between 400 and 491 mg/kg of body weight. No changes in liver weight in liver to body weight ratios were seen in female rats given single doses of up to 200 mg [REDACTED] kg (ovariectomized or normal). A single oral dose of either 100 or 200 mg [REDACTED] kg produced an increase in liver weight of male rats. Castration reduced the magnitude of the liver weight increase but rats castrated and given 200 mg/kg had heavier livers than did the controls (not treated with [REDACTED]). Clinical signs seen in [REDACTED] treated rats included, stained face and perineal area and sporadic weight loss.

* Purity: [REDACTED]

Contaminants: [REDACTED]

Synonym: o Ammonium perfluorooctanoate

o C-8

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LH:jrg:WP:14.3

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