

E. I. du Pont de Nemours and Company
Haskell Laboratory for Toxicology and Industrial Medicine
Elkton Road, Newark, Delaware 19711

HASKELL LABORATORY REPORT NO. 659-79 [REDACTED]

Material Tested	Haskell No.	Other Codes	Study Initiated/ Completed	Material Submitted by
Octanoic acid, penta-decafluoro-, ammonium salt*	12,037	[REDACTED]	8/21-9/12/79 (rabbits) 8/22-9/11/79 (rats)	[REDACTED] Plastic Products and Resins Department, Washington Works

SKIN ABSORPTION LD50 - RABBIT AND RAT

Procedure: (Rabbits)

Four groups of male albino rabbits were clipped free of hair over the back and trunk area and equipped with plastic collars. The proper dose of test material (made into a slurry with water) was applied to the back of each rabbit and wrapped successively with layers of Saran® Wrap, Kling® gauze bandages and Elastoplast® elastic bandages. After 24 hours of exposure, the animals were unwrapped, washed with water, dried and returned to cages for 14 or 15 days observation or until death. During the observation period, the animals were weighed and observed for clinical signs. Gross pathology was done on all survivors and 1 animal that was found dead at 3,000 mg/kg. The LD50 values were calculated from the mortality data using the method of D. J. Finney.†

Procedure: (Rats)

Three groups of Chr-CD male rats 5 rats per group, were clipped free of hair over the back and trunk area. The proper dose of test material¹, as a 50/50 aqueous suspension, was applied to the back of each rat under a square of aluminum foil and held in place with 3" Elastoplast®. After 24 hours exposure, the rats were unwrapped, sponged off with a mild detergent, rinsed, dried and returned to cages for 13 days observation or until death. During the observation period, the rats were weighed and observed for clinical signs. Gross pathology was done on all survivors and 1 rat that died at 7,500 mg/kg. The LD50 values were calculated from the mortality data using the method of D. J. Finney.†

* Other Name: [REDACTED]

Composition: [REDACTED]

† Finney, D. J., Probit Analysis, 2nd Ed., 1971, Cambridge University Press.
(Data with MR file)

¹ One rat dosed at 7,500 mg/kg did not have liver weight recorded at pathology.

Company Sanitized. Does not contain TSCA CBI

Results: (Rabbits)

<u>No. of Animals</u>	<u>Dose (mg/kg)</u>	<u>Average Dose (g) (Aqueous Slurry)</u>	<u>Average Weight Initial/Final</u>	<u>Mortality[#]</u>	<u>Clinical Signs</u>
2	7,500	25.28	3370.5/ -	1D - 2 d. 1D - 3 d.	Weight loss, labored breathing, cyanosis, body wet underneath and moderate skin irritation (erythema).
5	5,000	16.63	3326 / 2872	2D - 3 d. 1D - 4 d. 2S - 14 d.	Nasal discharge, shallow breathing, pallor, diarrhea, wet underneath body, weakness, weight loss and skin irritation with necrotic spots.
5	3,000	10.39	3463.2/2827.2	1D - 7 d. 2S - 14 d. 2S - 15 d.	Labored breathing, lethargy, skin irritation and weight loss.
5	1,500	4.99	3320 / 3002	5S - 14 d.	Labored breathing, skin irritation with crusty hard area and weight loss.

LD50 = 4,278 mg/kg

95% Confidence Limits: Lower: 2,369 mg/kg Upper: 9,814 mg/kg
Slope: 6.2504Results: (Rats)

<u>No. of Animals</u>	<u>Dose (mg/kg)</u>	<u>Average Dose (g) (Aqueous Slurry)</u>	<u>Average Weight Initial/Final</u>	<u>Mortality[#]</u>	<u>Clinical Signs</u>
5	7,500	1.9	254 / 298	3D - 1 d. 1D - 2 d. 1S - 14 d.	Lethargy, chromodacryorrhea, stained nose, wet and stained perineal area and initial weight loss.
5	5,000	1.4	276 / 316	5S - 14 d.	Lethargy, wet perineal area and initial weight loss.
5	3,000	0.87	290 / 345	5S - 14 d.	Initial weight loss only.

Gross Pathology: 2 rats: 1 FD at 1 day - liver weight not taken. No other compound-related signs noted. 1 Survivor (14 days) - increase in liver weight.

Gross Pathology: 5/5 Rats: Increase in liver weight.

Gross Pathology: 5/5 Rats: Increase in liver weight.

LD50 = 6,959 mg/kg

95% Confidence Limits not defined - Slope: 25.9

Summary: (Rabbits)

Octanoic acid, pentadecafluoro-, ammonium salt is moderately toxic by skin absorption in rabbits; its LD50 is 4,278 mg/kg of body weight.

Gross pathological examination showed no compound-related changes; however, there was skin irritation at all levels. Clinical signs included weight loss and labored breathing at all levels and wet underneath the body, cyanosis, diarrhea and lethargy appearing at most levels.

Summary: (Rats)

Octanoic acid, pentadecafluoro-, ammonium salt is slightly toxic in male rats by skin absorption; its LD50 is 6,959 mg/kg of body weight.

All rats dosed at 7,500, 5,000 and 3,000 mg/kg had initial weight loss. Rats dosed at 7,500 and 5,000 mg/kg were lethargic on the day of treatment and the majority had wet and/or stained perineal areas. Chromodacryorrhea was seen in rats treated at 7,500 mg/kg.

Gross pathology showed an increase in liver weights in all surviving rats examined at 14 days after treatment.

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