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HASKELL LABORATORY REPORT NO. 560-81 [REDACTED]

<u>Material Tested</u>	<u>Haskell No.</u>	<u>Other Codes</u>
1) Octanoic acid, pentadecafluoro-, ammonium salt*	1) 12,037	C-8
2) [REDACTED]	2) 14,008	[REDACTED]

Study Initiated/Completed
6/2/81 - 6/18-81

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

MOUSE FEEDING STUDY - 14 DAY

Procedure:

Eighty male and 80 female albino Cr1®:CD-1 mice (age 41 and 42 days, weighing 19 to 30 g) were separated by body weight into 5 groups according to computerized randomization. The mice were housed individually and fed either C-8 (H #12,037) or [REDACTED] (H #14,008) mixed with Purina Lab Chow for 14 consecutive days. Concentrations tested were 10, 30, 100, 300, 1,000, 3,000, and 10,000 ppm (for each material). Separate male and female controls were observed concurrently and fed only ground Purina Lab Chow. Individual body weights were recorded 3 times/week, food consumption weekly, clinical signs daily, and liver weights at the 14-day sacrifice.

Results:

Female Mice

C-8

(H-12,037)

Concentration ppm	Average Body Wts. after feeding (g)		Average Liver Weights (g)	Average Liver Wt/ Body Wt Ratio (g/100 g body wt)
	1 Week	2 Weeks		
0	23.8	24.9	1.53	6.14
10	23.9	26.0	3.02	11.62
30	23.5	24.7	3.24	13.11
100	24.1	22.8	3.94	17.28
300	21.6	18.2	3.39	18.63
1000	16.2	14.8	2.27	15.34
3000	13.8	A.D.	-	-
10,000	A.D.**	A.D.	-	-

[REDACTED]
(H-14,008)

Concentration ppm	Average Body Wts. after feeding (g)		Average Liver Weights (g)	Average Liver Wt/ Body Wt Ratio (g/100 g body wt)
	1 Week	2 Weeks		
0	23.5	25.1	1.55	6.18
10	23.4	24.5	1.83	7.47
30	23.7	25.3	1.99	7.87
100	23.8	24.7	2.09	8.46
300	23.5	21.9	2.94	13.42
1000	23.3	25.1	3.26	12.99
3000	21.7	24.1	3.14	13.03
10,000	18.8	20.0	2.56	12.80

Male Mice

C-8

(H-12,037)

Concentration ppm	Average Body Wts. after feeding (g)		Average Liver Weights (g)	Average Liver Wt/ Body Wt Ratio (g/100 g body wt)
	1 Week	2 Weeks		
0	27.1	28.3	1.69	5.97
10	28.9	30.8	4.13	13.41
30	28.1	27.9	4.40	15.77
100	26.4	23.7	4.48	18.90
300	25.8	23.1	4.10	17.75
1000	19.1	17.4	2.48	14.25
3000	A.D.	A.D.	-	-
10,000	18.7	A.D.	-	-

[REDACTED]
(H-14,008)

Concentration ppm	Average Body Wts. after feeding (g)		Average Liver Weights (g)	Average Liver Wt/ Body Wt Ratio (g/100 g body wt)
	1 Week	2 Weeks		
0	28.9	29.7	1.77	5.96
10	27.7	29.3	2.75	9.39
30	28.5	28.7	2.36	8.22
100	27.2	27.5	2.38	8.65
300	28.2	30.3	3.41	11.25
1000	27.1	28.8	3.03	10.52
3000	25.2	27.4	3.25	11.86
10,000	22.7	23.6	2.87	12.16

Clinical Observations:

Concentration ppm	Observations	
	C-8	
0	Weight loss.	Weight loss.
10	Stained perineal area, weight loss.	Weight loss.
30	Weight loss.	Weight loss.
100	Weakness, piloerection, stained perineal area, weight loss.	Weight loss.
300	Unkempt head area, weakness, tremors, wet and stained perineal area.	Weight loss.
1000	Death, unkempt head area, weakness, tremors, wet and stained perineal area, pilo- erection, weight loss.	Weight loss.
3000	Death, unkempt head area, weakness, piloerection, weight loss.	Unkempt head area, weight loss.
10,000	Death, unkempt head area, pallor, weight loss.	Unkempt head area, weakness, weight loss.

Summary: Either C-8 or [redacted] were fed to male and female Cr1®:CD-1 mice at 8 different concentrations (from 10 ppm to 10,000 ppm) for 14 consecutive days. Death occurred at 1,000 ppm, 3,000 ppm and 10,000 ppm in the C-8 mice. No deaths occurred in the [redacted] mice.

Body weight loss was indicated at the end of each week at 300 ppm, 1,000 ppm, 3,000 ppm or 10,000 ppm in C-8 male and female mice.

[redacted] mice showed a slightly lower rate of body weight gain at 10,000 ppm in male and female mice. Liver weight/body weight ratios showed a sharp increase at 10 ppm in male and female C-8 mice over the controls and showed a dose-response increase. [redacted] mice showed major increases in liver weight/body weight ratios at 300 ppm, 1,000 ppm, 3,000 ppm and 10,000 ppm in males and females. Male and female C-8 mice had heavier livers at lower concentrations than did [redacted] mice. C-8 clinical signs included: weakness, tremors, piloerection, pallor, stained perineal area, weight loss and unkempt appearances from 100 ppm to 10,000 ppm. [redacted] clinical signs included: unkempt appearance weakness and weight loss at 3,000 ppm and 10,000 ppm.

In male and female mice C-8 produced greater liver weight changes and reduced body weights at lower concentrations (from 10 ppm to 300 ppm) than [redacted]. At 1,000, 3,000 and 10,000 ppm C-8 produced death and [redacted] did not. Extensive clinical signs were observed in female and male mice from 100 ppm to 10,000 ppm of C-8, whereas with [redacted] few overt abnormalities were exhibited.

* H #12,037

Other Names: o C-8

[redacted]
o Ammonium perfluorooctanoate

Purity: [redacted]

Contaminants: [redacted]

CAS Registry No.: [redacted]

* H #14,008

Other Name: [REDACTED]

Purity: [REDACTED]

Contaminants: [REDACTED]

Composition: [REDACTED]

** A.D. = All died

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LSF:jrg:WP:13.4

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[REDACTED]
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