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ATTN: Section 8(e) Coordinator
Office of Pollution, Prevention and Toxics
US Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460

8EHQ-80-373

Re: TSCA 8(e) Supplemental notice for Sulfonate-based and Carboxylic-based Fluorochemicals-Docket numbers 8EHQ-1180-373; 8EHQ-1180-374; 8EHQ-0381-0394; 8EHQ-0598-373

Dear Docket Coordinator:

3M recently completed analyses of several fluorochemical compounds in individual, stored human sera. We have previously reported results of perfluorooctane sulfonate for human sera from pooled samples.^(1, 2) In the current analyses, individual samples were measured for sulfonate-based and carboxylic-based compounds. Table 1 represents samples of 599 individuals from 23 different states in the U.S. in the age span 2-12. These samples were drawn in 1995. Table 2 represents over 600 individuals from six blood banks across the United States, focusing in the age span 20-69. These samples were drawn in 2000. 3M will send a final report on these analyses to the EPA in the near future.

Table 1. Summary of Samples Drawn in 1995, Ages 2-12

Compound	Average	Median	95 th percentile	Range
PFOS C ₈ F ₁₇ SO ₃ ⁻	43.5 ppb ^(a)	36.7 ppb	90.2 ppb	6.7-515 ppb
PFHS C ₆ F ₁₃ CO ₂ ⁻	15.0 ppb	3.8 ppb	71.3 ppb	<LLOQ ^(b) -712 ppb
PFOSAA C ₈ F ₁₇ SO ₂ N(C ₂ H ₅)- CH ₂ CO ₂ ⁻	4.4 ppb	3.7 ppb	10.4 ppb	<LLOQ-23.8 ppb
M570 C ₈ F ₁₇ SO ₂ N(CH ₃)- CH ₂ CO ₂ ⁻	3.4 ppb	1.8 ppb	12.5 ppb	<LLOQ-48.0 ppb
PFOSA C ₈ F ₁₇ SO ₂ N ⁻	<LLOQ	<LLOQ	<LLOQ	<LLOQ
M556 C ₈ F ₁₇ SO ₂ NH- CH ₂ CO ₂ ⁻	3.0 ppb	2.5 ppb	7.3 ppb	<LLOQ-19.1 ppb
PFOA C ₇ F ₁₅ CO ₂ ⁻	5.6 ppb	5.1 ppb	10.2 ppb	<LLOQ-56.1 ppb

(a) ppb is parts per billion; (b) <LLOQ is less than the lower limit of quantification

Table 2. Summary of Blood Bank Samples Drawn in 2000, Focusing on Ages 20-69

Compound	Average	Median	95 th percentile	Range
PFOS C ₈ F ₁₇ SO ₃ ⁻	43.7 ppb	35.8 ppb	90.5 ppb	<LLOQ-1656 ppb
PFHS C ₆ F ₁₃ CO ₂ ⁻	2.9 ppb	1.6 ppb	9.6 ppb	<LLOQ-66.3 ppb
PFOSAA C ₈ F ₁₇ SO ₂ N(C ₂ H ₅)- CH ₂ CO ₂ ⁻	3.0 ppb	1.4 ppb	7.6 ppb	<LLOQ_60.1 ppb
M570 C ₈ F ₁₇ SO ₂ N(CH ₃)- CH ₂ CO ₂ ⁻	1.8 ppb	0.9 ppb	5.3 ppb	<LLOQ_19.0 ppb
PFOSA C ₈ F ₁₇ SO ₂ N ⁻	<LLOQ	<LLOQ	<LLOQ	<LLOQ
M556 C ₈ F ₁₇ SO ₂ NH- CH ₂ CO ₂ ⁻	<LLOQ	<LLOQ	<LLOQ	<LLOQ-12.9 ppb
PFOA C ₇ F ₁₅ CO ₂ ⁻	5.6 ppb	4.7 ppb	12.9 ppb	<LLOQ-52.3 ppb

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Section 8(e) Coordinator
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Please contact me at 651-733-5181 for additional questions relative to the above analyses.

Sincerely,

A handwritten signature in black ink, appearing to read "L. Zobel MD MPH". The signature is fluid and cursive, with the letters "L", "Z", "M", and "D" being particularly prominent.

Larry R. Zobel, MD MPH
Staff Vice President & Medical Director
3M Medical Department

- (1) Letter to TSCA 8(e) Co-ordinator, May 15, 1998
- (2) Perfluorooctane Sulfonate: Current Summary of Human Sera and Toxicology, January 21, 1999