

Polymer Products Department
Research & Development Division
Experimental Station

cc: M. A. Kaiser - 256
S. R. Laas - 256
M. Lombarski - 269
B. S. Shepard - 323
G. J. Sloan - 323
PRAL File - 256
I.C. - 323

ANALYTICAL REPORT

May 7, 1987

To: A. J. Playtis - PPD, Washington Works

From: M. J. Vilone and R. M. Vasta - PPD, ESL 269

mgv

RW

PERFLUOROOCTANOATE (C8) IN WATER
(Job No. 870-441; PRAL Nos. 87-2933 - 2937, Notebook No. E44875)

Five samples of water have been analyzed for perfluorooctanoate (C8) by electron capture gas chromatography. Method ES-567 was used with the following modifications: sample size was 10 g; lyophilization was ~18-20 hours; concentration of perfluorodecanoate internal standard was decreased 10 fold. Spiked standards at concentrations of 0.4, 0.5, 0.8, 1.0 and 1.9 ppb were examined. A reproducible detectable peak was observed for 0.4 ppb and we have used this as our detection limit. No C8 peak was detected in the spiked standards <.4 ppb. For the quantitation we had linear calibration curves over the range of 0.4 to 1.9 ppb. The samples were freeze dried, derivitized, and analyzed in duplicate. The results are expressed as ppb fluoride where $\text{ppb F} = 0.688 \times \text{ppb perfluorooctanoate}$.

The results are given in the attached table. If you have any questions, don't hesitate to call.

gm
Attachment

Keywords:

GC
Perfluorooctanoate
Water

RJZ009209

Perfluorooctanoate in Water

<u>PRAL</u>	<u>Designation</u>	<u>ngF/g. H₂O (ppb)</u> ^a
87-2933	#1	n.d.
87-2934	#2	1.3 1.9 ∞ C-8
87-2935	#3	1.3 1.9 ∞ C-8.
87-2936	#4	n.d.
87-2937	#5	n.d.

^a n.d. = none detected; detection limit = 0.4 ppb

.58 at C-8

RJZ009210

EID079093