



E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

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POLYMER PRODUCTS DEPARTMENT

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File: 8-5

AR226-1649

April 24, 1981

TO: F. A. FLUEGGE - F&F DEPT.
FAIRFIELD, CT

FROM: C. S. COPE - PPD
PARKERSBURG, WV

**REC'D
P&RA**

APR 28 1981

— AJSA	— MAB	— JAP
— MA	— WEG	— CES
— PUB	— JH	— RY
— RSB	— JWJ	— RCV
— MC	— SZL	— MCH
— FILE		

ANALYSES OF TEFLON® FELT SAMPLES FOR

RESIDUAL C-8 FLUOROSURFACTANT

As requested, we have analyzed for residual C-8 APFC fluoro-surfactant the samples of bleached and unbleached TEFLON® felt supplied by you. The method of analysis consisted of first boiling the samples in dilute aqueous phosphoric acid solution (in the presence of a nonvolatile, nonionic wetting agent, "Triton" X-100) and condensing the overhead vapor. The distillate, after neutralization with 0.1N NaOH, was analyzed for C-8 by a chloroform/blue dye colorimetric extraction method. While the method is not specific for C-8 APFC, the results are expressed in terms of equivalent C-8 APFC (M.W. = 431).

Results on the two samples were as shown below. In each case, a 50-g quantity of felt was cut into approximately 1/2-inch squares for analysis. Additional detail is given in Table I, appended.

Felt Type	Approx. Thickness,	Ppm (Wt.) of Equiv. C-8 APFC
	Inches	Based on Dry Sample Weight
XT-7700 (unbleached)	0.035	3.5
XT-7800 (bleached)	0.062	0.7

The level of residual C-8 APFC found on XT-7700 is comparable with that we have typically found, using the same method, on TEFLON® "fine powder" products, which are derived from aqueous dispersion manufactured using C-8 APFC as dispersing agent. In a general letter dated 4/2/81, F. N. Aronhalt, National Sales Manager of the Fluoropolymers Division of PPD, informed our customers that, "With the exception of aqueous dispersions, there is no significant residual FC-143 [3M Company's C-8 APFC] in any of the fluoropolymer resins which we sell." Based on the results obtained for the felt samples, it would therefore appear reasonable to conclude that they also contain "no significant residual FC-143".

There's a world of things we're doing something about

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F. A. FLUEGGE

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April 24, 1981

Please call me (863-4296) if you need any further information with regard to these analyses.

CSC/plc
Attachment

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TABLE I

ANALYTICAL DATA FOR TEFLON® PELT SAMPLES

A

Sample	Weight Taken for Analysis, g	Volume of Distillate, ml	Volume of Titrant, ml	Micrograms C-8 Equiv. Found in 50 ml Aliquot of Titrated Distillate (Calc./Acure A Method)	Parts per Million of C-8 Equiv. Based on Dry Sample Weight
KT-7700	49.7	821	7.1	10.5	3.5
KT-7800	50.0	818	5.4	2 (close to limit of detectability)	0.7

CSC/plc
18-7-81
4-27-81

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