



Second, DuPont committed to no longer make, use or buy PFOA by 2015. We are encouraged by our progress to eliminate PFOA and look forward to introducing more environmentally sustainable products in the future.

### **DuPont Achievements**

In our submission, we detail the progress we have made through 2006 in meeting the goals and objectives of the 2010/15 PFOA Stewardship Program. The DuPont achievements include the following:

- Reduced total PFOA emissions by approximately 95 percent in our global manufacturing operations since 2000. The U.S. reduction is almost 98 percent.
- Qualified customers representing over 90 percent of our sales volume for aqueous fluoropolymer dispersions (AFD) to a newly formulated technology that reduces PFOA content by 97 percent.
- Commercialized a \$22 million facility that removes more than 97 percent of trace levels of PFOA, direct precursors and homologues in our fluorotelomer products.
- Developed technology for PFOA emissions abatement, water treatment and recovery for reuse.
- Shared royalty-free access to DuPont patents and technology for PFOA emissions abatement, water treatment and recovery for reuse.
- Contributed to the PFOA scientific knowledge base with more than 70 published articles.

### **PFOA Reduction - Fluoropolymers**

DuPont has devoted substantial resources to reduce PFOA emissions from our fluoropolymer manufacturing operations since the late 1990's. Since 1998 DuPont has installed 21 emissions reduction projects at our three main fluoropolymer production sites in the U.S., Europe, and Japan. These projects have also reduced emissions in a way that allows us to recover and recycle a substantial portion of the PFOA used.

Compared to 2000, we have reduced our worldwide fluoropolymer manufacturing facility PFOA emissions by 95 percent through the end of 2006. DuPont has applied these reduction technologies globally, as demonstrated in our new fluoropolymer manufacturing facility started up this year in China.

DuPont has significantly reduced PFOA content in aqueous fluoropolymer dispersions through the development of Echelon™ Technology. The successful conversion of our global AFD product line was initiated in mid-2004 and involved significant effort and cost by both DuPont and our customers. We have installed commercial facilities at all three of our existing fluoropolymer manufacturing sites, as well as at our new plant in China. Echelon™ Technology delivers reduced PFOA content of at least 97 percent, and by the end of 2006, DuPont qualified customers representing over 90 percent of our AFD sales volume to low-PFOA products. The reported figures reflect that 2006 was a transition year with a mix of both existing and reformulated, low-PFOA AFD products.

Three critical applications (military, medical, and automotive) will require extended qualification times for complete conversion to new low-PFOA products. AFDs going into these applications constitute less than 10 percent of our sales volume in 2007, and this percentage will be reduced further as these applications are converted.

#### **PFOA, Higher Homologue and Precursor Reduction - Fluorotelomers**

Fluorotelomer products are not made with PFOA nor is PFOA added during the manufacture of fluorotelomer-based products. PFOA is found in trace amounts in some fluorotelomer products as an unintended manufacturing byproduct. Although scientific studies indicate that fluorotelomer manufacturing emissions have not been a significant source of PFOA in the environment, DuPont has actively worked to minimize manufacturing emissions and product content of PFOA, PFOA precursors and related homologues.

In recent years we dedicated significant resources to develop new impurity reduction technologies. These new, patented technologies were demonstrated in pilot facilities in 2005, and commercialized in late 2006. We invested \$22 million in this new LX Platform Products technology that removes greater than 97 percent of PFOA, its homologues and direct precursors in our primary fluorotelomer intermediate and resultant products. This investment in new process technology clearly demonstrates DuPont is committed to minimizing our environmental footprint through scientific innovation and product improvement.

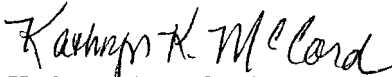
#### **Global Participation**

We are encouraged that eight companies have signed on to the voluntary stewardship program. However, some of the world's PFOA is made and used by companies not committed to a stewardship program. In order for such programs to be truly effective, we believe all such companies must adopt and implement aggressive reduction practices and processes. We support EPA's leadership in working with its counterparts in other countries to ensure that all such companies reduce emissions and product content of PFOA.

#### **Conclusion**

DuPont is proud of the PFOA reductions we have achieved and is committed to develop new high-performance, environmentally sustainable products. DuPont science is transforming our manufacturing processes and products, allowing us to go beyond the stewardship program by committing to no longer make, use or buy PFOA by 2015. We are pleased with our progress to date, and where possible, we will convert our products and processes in advance of 2015. Success in this area will depend on timely EPA review and approvals for these new products. We look forward to working with EPA and others in industry as we pursue these important objectives.

Respectfully submitted,

  
Kathryn K. McCord

cc: James B. Gulliford  
James J. Jones  
Charles M. Auer



Reply To: **KATHRYN K. MCCORD**  
E. I. du Pont de Nemours and Company  
Vice President  
1007 Market Street  
Wilmington, DE 19898

Telephone: 302.9995303  
Facsimile: 302.999.3404  
Email: Kathryn-kamins.mccord@usa.dupont.com

**VIA OVERNIGHT DELIVERY**

October 31, 2007

OPPT Document Control Office (DCO)  
EPA East Building, Room 6428  
1201 Constitution Avenue, NW  
Washington, DC 20004  
(202) 564-8930

**PUBLIC COPY  
NO CBI**

Attn: Docket ID Number EPA-HQ-OPPT-2006-0621

Dear Sir/Madam:

**2010/15 PFOA Stewardship Program Report**

Please find enclosed, in both paper copy and on CD, the 2006 DuPont Report (public copy; company sanitized) for the 2010/15 PFOA Stewardship Program.

We look forward to further dialogue on ongoing reporting to best meet the program objectives.

Sincerely,

A handwritten signature in cursive script that reads "Kathryn K. McCord".

Kathryn K. McCord

cc: Toni Krasnic (via overnight delivery)  
EPA East Building, Room 44102  
1201 Constitution Avenue, NW  
Washington, D.C. 10004  
(202) 564-0984

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## **Appendix F**

### **Company Annual Report – Summary of Reductions in Emissions and Product Content**

**COMPANY SANITIZED PUBLIC COPY**

## APPENDIX F

<b>SECTION 1: REPORT DATE</b>	October 2007
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<b>SECTION 2: COMPANY IDENTIFICATION</b>		
2a	Company Name	E. I. du Pont de Nemours and Company
	Street Address	1007 Market Street, Wilmington DE USA 19898

<b>SECTION 3: SUMMARY OF EMISSIONS <span style="color: red;">Public</span></b>						
Reporting Period (use calendar year - e.g. Jan 1, 2005 to Dec 31, 2005)				January 1, 2006 – December 31, 2006		
3a	Operations	Chemical category	Releases to all environmental media from fluoropolymer and telomer manufacture			% Reduction of total kgs released from baseline year
			kgs	$\frac{\text{kgs of category}}{\text{kgs of fluoropolymers}^1}$	$\frac{\text{kgs of category}}{\text{kgs of telomers}}$	
3a	U.S. facilities	PFOA and PFOA salts	1100			98%
		Higher homologues				
		Precursors	[CBI]			[CBI]
3b	Non-U.S. facilities	PFOA and PFOA salts	2600			86%
		Higher homologues				
		Precursors				
3c	Please provide information on the methods, assumptions, uncertainties and detection limits for the data provided above.					
	Methods, assumptions, etc. provided in business/site specific forms					

## **Appendix D**

### **Facility Report on Product Content**

#### **Fluoroelastomers**

**COMPANY SANITIZED PUBLIC COPY**

**2010/15 PFOA Stewardship Program**  
**Facility Report on Product Content**  
**PUBLIC COPY**

**I. CHEMICAL IDENTIFICATION**

Identify the product (e.g., fluoropolymer dispersion) for which you are submitting information:

Product name: Fluoroelastomer

Product description (including concentrations of perfluoroalkyl chemicals identified in Section IV below and year of production):

Elastomer made from fluorinated monomers in aqueous dispersion with the ammonium salt of PFOA, i.e. Octanoic acid, pentadecafluoro-ammonium salt (CAS 3825-26-1)

**II. COMPANY IDENTIFICATION**

Identify the company and location of the facility submitting information:

Company name: DuPont Performance Elastomers, LLC

Site location: [ CBI ]

Identify a company technical contact who can respond to inquiries about the information submitted:

Technical contact: Pascal Ferrandez  
Phone: 240 994 4967  
Address: Bellevue Parkway Corporate Center, Suite 300  
300 Bellevue Parkway  
Wilmington DE 19809

### III. PRODUCTION

Calendar year for which you are reporting: Jan 1, 2006\_ to Dec 31, 2006

Provide the amount of the product for the reporting year at each specific site:

Imported (not reported) kgs/yr

Manufactured (not reported) kgs/yr

### IV. PRODUCT CONTENT

#### A. CONCENTRATIONS OF RELEVANT PERFLUOROALKYL CHEMICALS

Please provide the concentrations (ppb) of various perfluoroalkyl chemicals in your product. For chemicals for which you do not have actual data, please provide range estimates.

The following is a nonexhaustive list of chemicals that should be included:

##### *PFOA and its salts*

- Octanoic acid, pentadecafluoro- (CAS 335-67-1)
- Octanoic acid, pentadecafluoro- ammonium salt (CAS 3825-26-1)

##### *PFOA precursors*

- Octane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7, 8,8-heptadecafluoro-8-iodo- (CAS 507-63-1)
- 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (CAS 678-39-7)
- 1-Decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (CAS 21652-58-4)
- 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester (CAS 27905-45-9)
- 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester (CAS 1996-88-9)
- 2-Decenoic acid, 3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-hexadecafluoro- (CAS 70887-84-2)
- Decanoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (CAS 27854-31-5)

##### *Higher homologues*

- Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafuoro-12-iodo- (CAS 307-60-8)

- Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro-10-iodo- (CAS 423-62-1)
- Nonanoic acid, heptadecafluoro- (CAS 375-95-1)
- Decanoic acid, nonadecafluoro- (CAS 335-76-2)
- 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (CAS 678-39-7)
- Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-10-iodo- (CAS 2043-53-0)
- Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro-12-iodo- (CAS 2043-54-1)
- 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester (CAS 4980-53-4)
- 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester (CAS 17741-60-5)

## B. ANALYTICAL METHODS

Analyses should be conducted using the most accurate instrumentation and procedures available as of the time of testing. Please provide detailed information on the methods used (including analytical standards used, sampling, sample treatment, analysis), assumptions made, uncertainties and detection limits (LOD, LOQ) for the data provided.

<b>SECTION 4: SUMMARY OF PRODUCT CONTENT Fluoroelastomers – Public</b>								
Reporting Period (use calendar year - e.g. Jan 1, 2005 to Dec 31, 2005)				January 1, 2006 – December 31, 2006				
4a	Product type		Fluoropolymer dispersions		Other fluoropolymers <sup>i</sup>		Telomer based products	
	Production volume (kgs/year) <sup>ii</sup>							
4b	Operations	Chemical category	Concentration <sup>iii</sup>			% Reduction from baseline year		
			Fluoropolymer dispersions <sup>iv</sup> (ppm wet-weight)	Other fluoropolymers <sup>i,v</sup> (ppb dry weight)	Telomer based products <sup>vi</sup> (ppb dry weight)	Fluoropolymer dispersions	Other fluoropolymers <sup>i</sup>	Telomer based products
	U.S. facilities	PFOA, PFOA salts and higher homologues		Fluoroelastomers 69,000 ppb (69 ppm)			80%	
		Precursors						
4c	Non-U.S. facilities	PFOA, PFOA salts and higher homologues		Fluoroelastomers 0 ppb			100%	
		Precursors						
4d	Please provide information on the methods, assumptions, uncertainties and detection limits for the data provided above.							
	Fluoroelastomers content: analytical measurement GC/ECD (Gas Chromatography / Electron Capture Detection) with LOD 1 ppm on limited but representative sample of past production, as elimination of use of PFOA occurred in 2001 for the manufacturing of most fluoroelastomers. Current production analyzed with LC/MS/MS (Liquid Chromatography Mass Spectrometry Triple Quad) with LOD of 30 ppt after Pressurized Solvent Extraction Technique							

<sup>i</sup> Fluoropolymers manufactured with PFOA.

<sup>ii</sup> Use the following ranges: (1) Zero (2) > 0 – 10 kgs; (3) > 10 kgs – 100 kgs; (4) > 100 kgs – 1,000 kgs; (5) > 1,000 kgs – 10,000 kgs; (6) > 10,000 kgs – 100,000 kgs; (7) > 100,000 kgs – 1,000,000 kgs; (8) Over 1,000,000 kgs.

<sup>iii</sup> Concentration should reflect the concentration of chemical in the product as sold by the reporting company. If the reporting company has information concerning the concentration of chemical in the product as used by others – for example, as incorporated by dilution into a formulation – that additional information would also be helpful.

<sup>iv</sup> This value should be expressed as a weighted average concentration and range.

<sup>v</sup> This value should be expressed as a maximum concentration.

<sup>vi</sup> This value should be expressed as a simple (not weighted) average and range.

## **Appendix D**

### **Facility Report on Product Content**

### **Aqueous Fluoropolymer Dispersion**

**COMPANY SANITIZED PUBLIC COPY**

**2010/15 PFOA Stewardship Program**  
**Facility Report on Product Content**  
**PUBLIC COPY**

**I. CHEMICAL IDENTIFICATION**

Identify the product (e.g. fluoropolymer dispersion) for which you are submitting information:

Product name: Aqueous Fluoropolymer Dispersion

Product description (including concentrations of perfluoroalkyl chemicals identified in Section IV below and year of production):

Aqueous fluoropolymer dispersions of PTFE and melt copolymers  
[ CBI ]

**II. COMPANY IDENTIFICATION**

Identify the company and location of the facility submitting information:

Company name: E. I. du Pont de Nemours and Company

Site location: [ CBI ]

Identify a company technical contact who can respond to inquiries about the information submitted:

Technical contact: William P. Raiford  
Phone: 302-999-2684  
Address: DuPont Fluoroproducts  
CRP 702-2114  
P.O. Box 80702  
Wilmington DE, 19880-0702

### III. PRODUCTION

Calendar year for which you are reporting: Jan 1, 2006 to Dec 31, 2006

Provide the amount of the product for the reporting year at each specific site:

Imported (not reported) kgs/yr

Manufactured (not reported) kgs/yr

### IV. PRODUCT CONTENT

#### A. CONCENTRATIONS OF RELEVANT PERFLUOROALKYL CHEMICALS

Please provide the concentrations (ppb) of various perfluoroalkyl chemicals in your product. For chemicals for which you do not have actual data, please provide range estimates.

The following is a nonexhaustive list of chemicals that should be included:

##### *PFOA and its salts*

- Octanoic acid, pentadecafluoro- (CAS 335-67-1)
- Octanoic acid, pentadecafluoro- ammonium salt (CAS 3825-26-1)

##### *PFOA precursors*

- Octane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7, 8,8-heptadecafluoro-8-iodo- (CAS 507-63-1)
- 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (CAS 678-39-7)
- 1-Decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (CAS 21652-58-4)
- 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester (CAS 27905-45-9)
- 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester (CAS 1996-88-9)
- 2-Decenoic acid, 3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-hexadecafluoro- (CAS 70887-84-2)
- Decanoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (CAS 27854-31-5)

*Higher homologues*

- Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafuoro-12-iodo- (CAS 307-60-8)
- Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro-10-iodo- (CAS 423-62-1)
- Nonanoic acid, heptadecafluoro- (CAS 375-95-1)
- Decanoic acid, nonadecafluoro- (CAS 335-76-2)
- 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (CAS 678-39-7)
- Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-10-iodo- (CAS 2043-53-0)
- Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro-12-iodo- (CAS 2043-54-1)
- 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester (CAS 4980-53-4)
- 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester (CAS 17741-60-5)

**B. ANALYTICAL METHODS**

Analyses should be conducted using the most accurate instrumentation and procedures available as of the time of testing. Please provide detailed information on the methods used (including analytical standards used, sampling, sample treatment, analysis), assumptions made, uncertainties and detection limits (LOD, LOQ) for the data provided.

<b>SECTION 4: SUMMARY OF PRODUCT CONTENT Aqueous Fluoropolymer Dispersion – Public</b>								
Reporting Period (use calendar year - e.g. Jan 1, 2005 to Dec 31, 2005)					January 1, 2006 – December 31, 2006			
4a	Product type		Fluoropolymer dispersions		Other fluoropolymers <sup>i</sup>		Telomer based products	
	Production volume (kgs/year) <sup>ii</sup>							
4b	Operations	Chemical category	Concentration <sup>iii</sup>			% Reduction from baseline year		
			Fluoropolymer dispersions <sup>iv</sup> (ppm wet-weight)	Fluoropolymer dispersions <sup>i,v</sup> (ppm dry weight)	Telomer based products <sup>vi</sup> (ppb dry weight )	Fluoropolymer dispersions	Other fluoropolymers <sup>i</sup>	Telomer based products
	U.S. facilities	PFOA, PFOA salts and higher homologues	547	946		44%		
		Precursors						
4c	Non-U.S. facilities	PFOA, PFOA salts and higher homologues	775	1,488		25%		
		Precursors						
4d	Please provide information on the methods, assumptions, uncertainties and detection limits for the data provided above.							
	PFOA concentration is measured on all production by Gas Chromatograph/Electron Capture Detector (GC/ECD) at the US and European sites and by High Performance Liquid Chromatography (HPLC) method at our Japan site. The Limit of Detection (LOD) for the GC/ED method is 1 ppm. The LOD for the HPLC method is 3 ppm at this time.							

<sup>i</sup> Fluoropolymers manufactured with PFOA or PFNA.

<sup>ii</sup> Use the following ranges: (1) Zero (2) > 0 – 10 kgs; (3) > 10 kgs – 100 kgs; (4) > 100 kgs – 1,000 kgs; (5) > 1,000 kgs – 10,000 kgs; (6) > 10,000 kgs – 100,000 kgs; (7) > 100,000 kgs – 1,000,000 kgs; (8) Over 1,000,000 kgs.

<sup>iii</sup> Concentration should reflect the concentration of chemical in the product as sold by the reporting company. If the reporting company has information concerning the concentration of chemical in the product as used by others – for example, as incorporated by dilution into a formulation – that additional information would also be helpful.

<sup>iv</sup> This value should be expressed as a weighted average concentration and range.

<sup>v</sup> This value should be expressed as a maximum concentration.

<sup>vi</sup> This value should be expressed as a simple (not weighted) average and range.

## **Appendix D**

# **Facility Report on Product Content**

## **Fluorotelomers**

**COMPANY SANITIZED PUBLIC COPY**

**2010/15 PFOA Stewardship Program**  
**Facility Report on Product Content**  
**PUBLIC COPY**

**I. CHEMICAL IDENTIFICATION**

Identify the product (e.g., fluoropolymer dispersion) for which you are submitting information:

Product name: Fluorotelomer-based polymeric and surfactant products

Product description (including concentrations of perfluoroalkyl chemicals identified in Section IV below and year of production):

Production year: 2006

[ CBI ]

**II. COMPANY IDENTIFICATION**

Identify the company and location of the facility submitting information:

Company name: E. I. du Pont de Nemours and Company

Site locations: [ CBI ]

Identify a company technical contact who can respond to inquiries about the information submitted:

Technical contact: Stephen Korzeniowski

Phone: 302-695-8672

Address: Wilmington, DE

### III. PRODUCTION

Calendar year for which you are reporting: Jan 1, 2006 to Dec 31, 2006

Provide the amount of the product for the reporting year at each specific site:

Imported	NA	kgs/yr
Manufactured	[	CBI ]

### IV. PRODUCT CONTENT

#### A. CONCENTRATIONS OF RELEVANT PERFLUOROALKYL CHEMICALS

Please provide the concentrations (ppb) of various perfluoroalkyl chemicals in your product. For chemicals for which you do not have actual data, please provide range estimates.

The following is a nonexhaustive list of chemicals that should be included:

##### *PFOA and its salts*

- Octanoic acid, pentadecafluoro- (CAS 335-67-1)
- Octanoic acid, pentadecafluoro- ammonium salt (CAS 3825-26-1)

##### *PFOA precursors*

- Octane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7, 8,8-heptadecafluoro-8-iodo- (CAS 507-63-1)
- 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (CAS 678-39-7)
- 1-Decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (CAS 21652-58-4)
- 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester (CAS 27905-45-9)
- 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester (CAS 1996-88-9)
- 2-Decenoic acid, 3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-hexadecafluoro- (CAS 70887-84-2)
- Decanoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro- (CAS 27854-31-5)

##### *Higher homologues*

- Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafuoro-12-iodo- (CAS 307-60-8)
- Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro-10-iodo- (CAS 423-62-1)
- Nonanoic acid, heptadecafluoro- (CAS 375-95-1)
- Decanoic acid, nonadecafluoro- (CAS 335-76-2)

- 1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluoro- (CAS 678-39-7)
- Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-10-iodo- (CAS 2043-53-0)
- Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro-12-iodo- (CAS 2043-54-1)
- 2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl ester (CAS 4980-53-4)
- 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester (CAS 17741-60-5)

[

CBI

]

## B. ANALYTICAL METHODS

Analyses should be conducted using the most accurate instrumentation and procedures available as of the time of testing. Please provide detailed information on the methods used (including analytical standards used, sampling, sample treatment, analysis), assumptions made, uncertainties and detection limits (LOD, LOQ) for the data provided.

The general methods used for the analyses reported here have been published in the following article:

Larsen, B.S.; Stchur, P.; Szostek, B.; Bachmura, S.F.; Rowand, R.C.; Prickett, K.B.; Korzeniowski, S.H.; Buck, R.C. Method development for the determination of residual fluorotelomer raw materials and perfluorooctanoate in fluorotelomer-based products by gas chromatography and liquid chromatography mass spectrometry. *Journal of Chromatography A*. 2006 (1110), 117-124.

In general, the LOQ was 2 ppm and LOD was 0.7 ppm.

<b>SECTION 4: SUMMARY OF PRODUCT CONTENT Fluorotelomers - Public</b>								
Reporting Period (use calendar year - e.g. Jan 1, 2005 to Dec 31, 2005)				as of December 31, 2006 (Year End Run Rate)				
4a	Product type		Fluoropolymer dispersions		Other fluoropolymers <sup>i</sup>		Telomer based products	
	Production volume (kgs/year) <sup>ii</sup>							
4b	Operations	Chemical category	Concentration <sup>iii</sup>			% Reduction from baseline year		
			Fluoropolymer dispersions <sup>iv</sup> (ppm wet-weight)	Other fluoropolymers <sup>i,v</sup> (ppb dry weight)	Telomer based products <sup>vi</sup> (Year End run rate - kg.)	Fluoropolymer dispersions	Other fluoropolymers <sup>i</sup>	Telomer based products
	Global facilities	PFOA, PFOA salts			246			50%
		Direct Precursors C8 Telomer A 8-2-8 Ester [CBI]			57 41 16 [CBI]			14% [CBI]
Please provide information on the methods, assumptions, uncertainties and detection limits for the data provided above.								
4d	<p>LOQs for analytical methods for impurities in DuPont FT products is 2 ppm. Methods used were as follows: LC/MS/MS - PFOA; GC/MS - all others. Values were obtained by measuring individual products, obtaining the impurity levels in ppm, and then calculating the actual pounds of impurities by multiplying the pounds made times the ppm of impurities. These are the values reported above. If a value was determined to be &lt;LOQ, we used the standard EPA convention of 1/2 LOQ (1 ppm) as the measurement for the yearly pounds calculation. The general methods used for the analyses reported here have been published in the following article:</p> <p>Larsen, B.S.; Stchur, P.; Szostek, B.; Bachmura, S.F.; Rowand, R.C.; Prickett, K.B.; Korzeniowski, S.H.; Buck, R.C. Method development for the determination of residual fluorotelomer raw materials and perfluorooctanoate in fluorotelomer-based products by gas chromatography and liquid chromatography mass spectrometry. Journal of Chromatography A. 2006 (1110), 117-124. In general the LOQ was 2 ppm and LOD was 0.7 ppm.</p>							

<sup>i</sup> Fluoropolymers manufactured with PFOA.

<sup>ii</sup> Use the following ranges: (1) Zero (2) > 0 – 10 kgs; (3) > 10 kgs – 100 kgs; (4) > 100 kgs – 1,000 kgs; (5) > 1,000 kgs – 10,000 kgs; (6) > 10,000 kgs – 100,000 kgs; (7) > 100,000 kgs – 1,000,000 kgs; (8) Over 1,000,000 kgs.

<sup>iii</sup> Concentration should reflect the concentration of chemical in the product as sold by the reporting company. If the reporting company has information concerning the concentration of chemical in the product as used by others – for example, as incorporated by dilution into a formulation – that additional information would also be helpful.

<sup>iv</sup> This value should be expressed as a weighted average concentration and range.

<sup>v</sup> This value should be expressed as a maximum concentration.

<sup>vi</sup> This value should be expressed as a simple (not weighted) average and range.