



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES,
AND TOXIC SUBSTANCES

MEMORANDUM

Date: November 3, 2004

Subject: Fluometuron. Summary of Product Chemistry for the Reregistration Eligibility Decision (RED) Document.

DP Barcode: D301629
Case Number: 0040
40 CFR §: 180.229

PC Code: 035503
Chemical Class: Phenylurea

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This product chemistry summary document was originally prepared under contract by Dynamac Corporation (20440 Century Boulevard, Suite 100; Germantown, MD 20874). The summary document has been reviewed by the Health Effects Division (HED) and revised to reflect current Office of Pesticide Program (OPP) policies.

Executive Summary

Fluometuron, 1,1-dimethyl-3-(α,α,α -trifluoro-*m*-tolyl)urea, is a phenylurea herbicide that may be applied preplant, preemergence, and/or postemergence. Fluometuron is used for the selective control of broadleaf weeds and annual grasses in cotton. Reregistration of the fluometuron technical material is supported by Agan Chemical Manufactures, Ltd. (Agan). The US Agent for Agan is Makhteshim-Agan of North America, Inc. (MANA). The food/feed use of fluometuron on cotton is supported by Agan.

Currently, there are three active registered fluometuron manufacturing-use products (MPs). Only Agan's Cotoran[®] Technical (EPA Reg. No. 11603-31) is subject to a reregistration eligibility decision. The other two companies with registered fluometuron MPs, Loveland Products, Inc. (EPA Reg. No. 34704-705) and Micro-Flo Company, LLC (EPA Reg. No. 51036-228), are not to be considered because their products are repackaged from an EPA registered product. All product chemistry requirements will be fulfilled by data for the technical source product.

Available product chemistry data, including data that has been previously reviewed, were assessed in the "Product Chemistry and Residue Chemistry Chapters for the Reregistration Eligibility Decision Document" (S. Funk, D230109, 12/20/1996). For product chemistry, all generic and product-specific requirements are satisfied for the Agan technical, except for a data requirement for the pH of the pure active ingredient (Office of Prevention, Pesticides, and Toxic Substances [OPPTS] Guideline Number: 830.7000) and a new data requirement for the uv/visible absorption of the pure active ingredient (OPPTS 830.7050). Updated confidential statement of formulas (CSFs) are required for all technical products to confirm and clearly identify the current EPA Reg. No(s), the actual producer(s) and supplier(s) of the source product(s), the production site(s), and the nominal concentration and upper and lower certified limits of the active ingredient based on the actual amount of the active ingredient in the source product(s) (OPPTS 830.1550 and 830.1750). The outstanding product chemistry data requirements for fluometuron are summarized in Table 1 and are detailed in the data summary tables (Tables 5, 6, and 7).

Please note that this RED chapter only addresses the product chemistry data requirements for the registered technical products of fluometuron. If any of the registered formulation intermediates or end-use products are manufactured from unregistered technical grade active ingredients (TGAIs), product chemistry data must be submitted for the unregistered TGAIs.

Product Chemistry Deficiencies

Table 1. Product Chemistry Data Requirements for Fluometuron MPs.			
Product	EPA Reg. No.	Registrant	OPPTS Guideline Requirements
Cotoran [®] Technical (96.0%)	11603-31	Agan Chemical Manufactures, Ltd.	830.1550, 830.1750, 830.7000, 830.7050

Table 1. Product Chemistry Data Requirements for Fluometuron MPs.			
Product	EPA Reg. No.	Registrant	OPPTS Guideline Requirements
Clean Crop Cotoran [®] Technical (96.0%) ¹	34704-705	Loveland Products, Inc.	830.1550, 830.1750
Chem-Flo Technical Fluometuron (96.5%) ¹	51036-228	Micro-Flo Company, Inc.	830.1550, 830.1750

1. Product is repackaged from an EPA registered product. All product chemistry data requirements will be fulfilled by data for the technical source product except those required under 830.1550 and 830.1750.

Background

The Fluometuron Reregistration Standard dated April 19, 1985 and Fluometuron Guidance Document dated December 17, 1985 required additional generic and product-specific data for the Agan Cotoran[®] Technical concerning OPPTS 830.1750, 830.1800, and 830.7370; data pertaining to product-specific characteristics (OPPTS 830.6314 to 830.6320 and 830.7100) were not addressed. The Fluometuron Reregistration Standard Update dated April 19, 1990 summarized the available product chemistry database for Agan, and required additional data concerning nitrosamines (OPPTS 830.6314, 830.6316, 830.6317, and 830.6320). The Product Chemistry and Residue Chemistry Chapters for the Reregistration Eligibility Decision Document dated December 20, 1996 (S. Funk, D230109) summarized the available product chemistry data, and required data for a new guideline for the uv/visible absorption of the active ingredient (OPPTS 830.7050).

Fluometuron is a white crystalline solid with an amine-like odor and a melting point of 163-164.5°C. Fluometuron is soluble in water at 105 ppm and is soluble in acetone at 15%, chloroform at 2%, hexane at less than 4%, methanol at 14%, and methylene at 2% at 20°C. Fluometuron is stable at room temperature, but is hydrolyzed under acid or base conditions.

Table 2. Test Compound Nomenclature.	
Chemical structure	
Common name	Fluometuron
Empirical formula	C ₁₀ H ₁₁ F ₃ N ₂ O
IUPAC name	1,1-dimethyl-3-(α,α,α -trifluoro- <i>m</i> -tolyl)urea
CAS name	<i>N,N</i> -dimethyl- <i>N'</i> -(3-(trifluoromethyl)phenyl)urea
CAS number	2164-17-2
PC Code	035503

Table 2. Test Compound Nomenclature.	
End-use product (EP)	Cotoran [®] 4L, Cotoran [®] 80 DF, Fluometuron 80WP, Fluometuron 80DF, Fluometuron 4L, Fluometuron + MSMA, Drexel Creek™ Fluometuron + MSMA, Flo-Met 4L, Flo-Met 80DF, Cotoran [®] + MSMA with Surfactant, Cotoran [®] 80WP, Cotoran [®] 80W, Cotoran [®] 4L, Cotoran [®] DF, Cotoran [®] Accu-Pak

Table 3. Physicochemical Properties of the Technical Grade Test Compound.		
Parameter	Value	Reference
Molecular weight	232.20	Merck Index
pH	Not available	
UV/visible absorption	Not available	
Melting point/melting range	163-164.5°C	MRID 00019017
Density	1.40 ± 0.02 g/cm ³ at 20°C	MRID 00019017
Dissociation constant in water	No dissociation	MRID 42017302
Octanol/water partition coefficient	242 (log P = 2.38)	MRID 00160757
Water solubility	105 ppm at 20°C	MRID 00152460
Solvent solubility	Acetone 15%, Chloroform 2%, Hexane less than 4%, Methanol 14%, Methylene 2% at 20°C	MRID 00019017
Vapor pressure	5 x 10 ⁻⁷ mm Hg at 20°C	MRID 00019017

Manufacturing-Use Products

Currently, there are three active fluometuron manufacturing-use products (MPs). Only Agan's Cotoran[®] Technical (EPA Reg. No. 11603-31) MP is subject to a reregistration eligibility decision.

Table 4. Registered Fluometuron Manufacturing-Use Products.			
Product	EPA Reg. No.	Registrant	Status
96.0% T ¹	11603-31	Agan Chemical Manufactures, Ltd.	Active-Registered 5/28/74 Concurrent-Under Reregistration 9/11/1991
96.0% T ²	34704-705	Loveland Products, Inc.	Active-Conditionally Registered 3/27/1991 Concurrent-Under Reregistration 9/11/1991 Concurrent-Under Reregistration 10/13/1995
96.5% T ³	51036-228	Micro-Flo Company, LLC	Active-Conditionally Registered 1/20/1990 Concurrent-Under Reregistration 10/13/1995

1. Transferred on 10/13/1999 from Novartis Crop Protection, Inc. (EPA Reg. No. 100-561).

2. Company name changed on 10/7/2003 from Platte Chemical Company, Inc.

3. Transferred on 9/29/1994 from Chem-Flo, Inc. (EPA Reg. No. 64085-1).

830.1550-830.7950 Product Chemistry Data Requirements

The current status of the product chemistry data requirements for the fluometuron manufacturing-use products is presented in Tables 5, 6, and 7. Refer to these tables for a listing

of the outstanding product chemistry data requirements.

Conclusions

All pertinent generic and product-specific data requirements are satisfied for the Agan's Cotoran[®] Technical (11603-31), except for a data requirement concerning pH of the active ingredient (OPPTS 830.7000) and a new data requirement concerning uv/visible absorption of the active ingredient (OPPTS 830.7050). All product chemistry data requirements for the Loveland's Clean Crop Cotoran[®] Technical (34704-705) and the Micro-Flo's Chem-Flo Technical Fluometuron (51036-228) will be satisfied by data submitted for the technical source product. Updated confidential statement of formulas (CSFs) are required for all technical products to confirm and clearly identify the current EPA Reg. No(s), the actual producer(s) and supplier(s) of the source product(s), the production site(s), and the nominal concentration and upper and lower certified limits of the active ingredient based on the actual amount of the active ingredient in the source product(s) (OPPTS 830.1550 and 830.1750).

HED has no objections to the reregistration of fluometuron with respect to product chemistry, provided the data requirements are fulfilled in a timely manner.

Table 5. Product Chemistry Data Summary.			
Case Name: Fluometuron PC Code: 035503 Registrant: Agan Chemical Manufactures, Ltd. Product: Cotoran® Technical (96.0%) EPA Registration Number: 11603-31			
OPPTS Guideline Number	Requirement	Are Data Requirements Fulfilled? ¹	MRID ²
830.1550	Product Identity and Disclosure of Ingredients	N ¹³	00132417
830.1600 830.1620 830.1650	Starting Materials and Manufacturing Process	Y	00132417
830.1670	Discussion of Formation of Impurities	Y	00132417
830.1700	Preliminary Analysis	Y	00132417 , 42017301 ³ , 42834901 ⁴ , 42834902 ⁴
830.1750	Certification of Ingredient Limits	N ¹³	00132417 , 00160756 ⁵ , letter 9/3/86 ⁶
830.1800	Analytical Methods to Verify the Certified Limits	Y	00019016 , 00019018 , 00118012 , 00132417 , 00160756 ⁵
830.6302	Color	Y	00019017
830.6303	Physical State	Y	00019017
830.6304	Odor	Y	00019017
830.6313	Stability	Y	00019017
830.6314	Oxidation/Reduction	Y	42556601 ⁷
830.6315	Flammability	N/A ⁸	
830.6316	Explosibility	Y	42556601 ⁷
830.6317	Storage Stability	Y	42556601 ⁷ , 42998701 ⁹
830.6319	Miscibility	N/A ⁸	
830.6320	Corrosion Characteristics	Y	42556601 ⁷
830.7000	pH	N ¹⁰	
830.7050	UV/Visible Absorption	N ¹¹	
830.7100	Viscosity	N/A ⁸	
830.7200	Melting Point/Melting Range	Y	00019017
830.7220	Boiling Point/Boiling Range	N/A ⁸	
830.7300	Density/Relative Density/Bulk Density	Y	00019017
830.7370	Dissociation Constant in Water	Y	42017302 ³
830.7550 830.7560 830.7570	Partition Coefficient (Octanol/Water)	Y	00152460 , 00160757 ⁵
830.7840 830.7860	Solubility	Y	00019017 , 00152460 ¹²
830.7950	Vapor Pressure	Y	00019017 , 00152460 ¹²

1. Y = Yes; N = No; N/A = Not Applicable.

2. Bolded references were reviewed in the Product Chemistry Chapter of the Reregistration Standard dated 4/19/85, and all other references were reviewed as noted.

3. L. Chang, CBRS 8621, D169090, 5/1/92.

4. R. Perfetti, CBRS 12198, D193064, 9/10/93.

5. G. Makhijani, CBRS 1157, 9/3/86.

6. G. Makhijani, CBRS 1724, 1/12/87.

7. D. McNeilly, CBRS 10958, D185133, 12/30/92.
8. Data are not required because the TGAI/MP is a solid at room temperature.
9. F. Toghrol, CBRS 12893, D197178, 3/24/94.
10. The TGAI/MP is dispersable in water (105 ppm at 20°C), so pH data is required.
11. The OPPTS Series 830, Product Properties Test Guidelines require data pertaining to UV/visible absorption for the PAI.
12. J. Garbus, CBRS 333, 12/20/84.
13. An Updated CSF is required to confirm and clearly identify the current EPA Reg. No(s)., the actual producer(s) and supplier(s) of the source product(s), the production site(s), and the nominal concentration and upper and lower certified limits of the active ingredient based on the actual amount of the active ingredient in the source product(s).

Table 6. Product Chemistry Data Summary.			
Case Name: Fluometuron PC Code: 035503 Registrant: Loveland Products, Inc. Product: Cotoran® Technical (96.0%) EPA Registration Number: 34704-705			
OPPTS Guideline Number	Requirement	Are Data Requirements Fulfilled? ¹	MRID
830.1550	Product Identity and Disclosure of Ingredients	N ³	CSF 3/8/91 ²
830.1600 830.1620 830.1650	Starting Materials and Manufacturing Process	N/A	
830.1670	Discussion of Formation of Impurities	N/A	
830.1700	Preliminary Analysis	N/A	
830.1750	Certification of Ingredient Limits	N ³	CSF 3/8/91 ²
830.1800	Analytical Methods to Verify the Certified Limits	N/A	
830.6302	Color	N/A	
830.6303	Physical State	N/A	
830.6304	Odor	N/A	
830.6313	Stability	N/A	
830.6314	Oxidation/Reduction	N/A	
830.6315	Flammability	N/A	
830.6316	Explosibility	N/A	
830.6317	Storage Stability	N/A	
830.6319	Miscibility	N/A	
830.6320	Corrosion Characteristics	N/A	
830.7000	pH	N/A	
830.7050	UV/Visible Absorption	N/A	
830.7100	Viscosity	N/A	
830.7200	Melting Point/Melting Range	N/A	
830.7220	Boiling Point/Boiling Range	N/A	
830.7300	Density/Relative Density/Bulk Density	N/A	
830.7370	Dissociation Constant in Water	N/A	
830.7550 830.7560 830.7570	Partition Coefficient (Octanol/Water)	N/A	
830.7840 830.7860	Solubility	N/A	
830.7950	Vapor Pressure	N/A	

1. Y = Yes; N = No; N/A = Not Applicable. This product is repackaged from an EPA-registered product; all product chemistry data requirements will be fulfilled by data for the technical source product.

2. The CSF was obtained from the product jacket.

3. An Updated CSF is required to confirm and clearly identify the current EPA Reg. No(s). of the source product(s), the actual producer(s) and supplier(s) of the source product(s), the production site(s), and the nominal concentration and upper and lower certified limits of the active ingredient based on the actual amount of the active ingredient in the source product(s). Please note that if the required CSF reveals that the product is not repackaged from an EPA-registered product, then additional product chemistry data may be required.

Table 7. Product Chemistry Data Summary.			
Case Name: Fluometuron PC Code: 035503 Registrant: Micro-Flo Company, LLC Product: Chem-Flo Technical Fluometuron (96.5%) EPA Registration Number: 51036-228			
OPPTS Guideline Number	Requirement	Are Data Requirements Fulfilled? ¹	MRID
830.1550	Product Identity and Disclosure of Ingredients	N ³	CSF 9/23/96 ²
830.1600 830.1620 830.1650	Starting Materials and Manufacturing Process	N/A	
830.1670	Discussion of Formation of Impurities	N/A	
830.1700	Preliminary Analysis	N/A	
830.1750	Certification of Ingredient Limits	N ³	CSF 9/23/96 ²
830.1800	Analytical Methods to Verify the Certified Limits	N/A	
830.6302	Color	N/A	
830.6303	Physical State	N/A	
830.6304	Odor	N/A	
830.6313	Stability	N/A	
830.6314	Oxidation/Reduction	N/A	
830.6315	Flammability	N/A	
830.6316	Explosibility	N/A	
830.6317	Storage Stability	N/A	
830.6319	Miscibility	N/A	
830.6320	Corrosion Characteristics	N/A	
830.7000	pH	N/A	
830.7050	UV/Visible Absorption	N/A	
830.7100	Viscosity	N/A	
830.7200	Melting Point/Melting Range	N/A	
830.7220	Boiling Point/Boiling Range	N/A	
830.7300	Density/Relative Density/Bulk Density	N/A	
830.7370	Dissociation Constant in Water	N/A	
830.7550 830.7560 830.7570	Partition Coefficient (Octanol/Water)	N/A	
830.7840 830.7860	Solubility	N/A	
830.7950	Vapor Pressure	N/A	

1. Y = Yes; N = No; N/A = Not Applicable. This product is repackaged from an EPA-registered product; all product chemistry data requirements will be fulfilled by data for the technical source product.

2. The CSF was obtained from the product jacket.

3. An Updated CSF is required to confirm and clearly identify the current EPA Reg. No(s). of the source product(s), the actual producer(s) and supplier(s) of the source product(s), the production site(s), and the nominal concentration and upper and lower certified limits of the active ingredient based on the actual amount of the active ingredient in the source product(s). Please note that if the required CSF reveals that the product is not repackaged from an EPA-registered product, then additional product chemistry data may be required.

Bibliography

Study Citations

00019016 Barringer, M.; North, B. (1977) Analysis of Fluometuron in Cotoran 80W by Derivatization and Gas Chromatographic Techniques. Method no. PA-42B dated Sep 9, 1977. (Unpublished study received Jan 24, 1978 under 100-569; submitted by Ciba-Geigy Corp., Greensboro, N.C.; CDL:232774-B).

00019017 Ciba-Geigy Corporation (1978) Fluometuron Technical Chemical Data Section. (Unpublished study received Jun 22, 1978 under 100-561; CDL:234174-A).

00019018 Nirsberger, M.; Barringer, M.; Heinrichs, L. (1978) Complete Analysis of Fluometuron and Related Impurities in Technical Material. Method no. PA-162A dated May 25, 1978. (Unpublished study received Jun 22, 1978 under 100-561; submitted by Ciba-Geigy Corp., Greensboro, N.C.; CDL:234174-B).

00118012 Ciba-Geigy Corp. (1982) Cotoran 4L: Chemical Data Section. (Compilation; unpublished study received Nov 3, 1982 under 100-642; CDL:248811-A).

00132417 Ciba-Geigy Corp. (1983) [Study--Chemical: Fluometuron]. (Compilation; unpublished study received Oct 28, 1983 under 100-561; CDL:251618-A).

00152460 Ciba-Geigy Corp. (1984) Fluometuron: Product Chemistry Data. Unpublished study. 1 p.

00160756 Ciba-Geigy Corp. (1986) Fluometuron: Certification of Ingredient Limits: PC 86-012. Unpublished study. 21 p.

00160757 Carpenter, M. (1986) Determination of Octanol-water Partition Coefficient of Fluometuron: ABC Final Report #34617. Unpublished study prepared by Analytical Bio-Chemistry Laboratories, Inc. 152 p.

41591601 Lovell, J. (1990) Product Identity and Composition, Description of Manufacturing Process and Discussion of the Formation of Impurities in the Production of Technical Fluometuron ...: Lab Project Number: 90F001. Unpublished study prepared by North Hungarian Chemical Works. 54 p.

41591602 Lovell, J. (1990) Summary of Preliminary Analysis of Product Samples, Certification Ingredient Limits, Analytical Methods, and Physical and Chemical Properties of Chem-Flo Technical Fluometuron: Lab Project Number: 90F002. Unpublished study prepared by Chem-Flo, Inc. 11 p.

41591603 Clark, A. (1990) Fluometuron: Preliminary Analysis of Product Samples and Physical and Chemical Characteristics: Lab Project Number: 9576-F. Unpublished study prepared by Midwest Research Institute. 108 p.

- 41655301 Lovell, J. (1990) Supplemental Data to MRID 41591601: Additional Information on Manufacturing Process and Discussion of the Formation of Impurities in the Production of Technical Fluometuron: Lab Project Number: CFI/DOC/#90F001/A. 8 p.
- 41655302 Clark, A. (1990) Supplemental Data to MRID 41591603: Additional Data on Preliminary Analysis of Product Samples of Technical Fluometuron: Lab Project Number: MRI/PROJECT/9576/F. Unpublished study prepared by Midwest Research Institute. 7 p.
- 42017301 Lail, L. (1991) Fluometuron Technical: Product Chemistry: Lab Project Number: PC-91-023. Unpublished study prepared by Ciba-Geigy Corp. 5 p.
- 42017302 Lail, L. (1991) Fluometuron Technical: Product Chemistry: Lab Project Number: PC-91-023. Unpublished study prepared by Ciba-Geigy Corp. 8 p.
- 42365505 Orr, G. (1992) Griffin Corporation Test Methods: Physical and Chemical Characteristics of Pesticide Products. Unpublished study prepared by Griffin Corp. 25 p.
- 42556601 Jackson, W. (1992) Product Chemistry: Technical Fluometuron: Lab Project Number: MP 92-09: 92-013. Unpublished study prepared by Ciba-Geigy Corp. 19 p.
- 42581701 Dowler, C. (1992) Technical Fluometuron: Preliminary Five Batch Analysis of Technical Grade Fluometuron: Lab Project Number: 92-006. Unpublished study prepared by Griffin Corp. 10 p.
- 42581702 Dowler, C. (1992) Griffin Analytical Method TM-1060: Technical Fluometuron Assay Method: Lab Project Number: 92-006. Unpublished study prepared by Griffin Corp. 35 p.
- 42581703 Dowler, C. (1992) Technical Fluometuron: Accelerated Storage Stability: Lab Project Number: 92-006. Unpublished study prepared by Griffin Corp. 9 p.
- 42581704 Dowler, C. (1992) Technical Fluometuron: Physical and Chemical Characteristics: Lab Project Number: 92-009. Unpublished study prepared by Griffin Corp. 10 p.
- 42581705 Dowler, C. (1992) Technical Fluometuron: One-year Storage Stability: Progress Report: Lab Project No. 92-009. Unpublished study prepared by Griffin Corp. 12 p.
- 42834901 Jackson, W. (1993) Technical Fluometuron: Addendum to Product Chemistry. Unpublished study prepared by Ciba-Geigy Corp. 9 p.
- 42834902 Jackson, W. (1993) Technical Fluometuron: Supplement to Product Chemistry. Unpublished study prepared by Ciba-Geigy Corp. 44 p.
- 42998701 Jackson, W. (1993) Technical Fluometuron: Product Chemistry: Lab Project Number: PC-93-013. Unpublished study prepared by Ciba Plant Protection, Ciba-Geigy Corp. 21 p.

Agency Memoranda Citations

Table 8. Agency Memoranda Citations.						
Date	Barcode	CBRS	From	To	MRID	Subject
12/20/1984	None	333	J. Garbus	G. Werdig S. Creeger	00152460	ID# 35503: Fluometuron, Groundwater Data Call-In.
9/3/1986	None	1157	G. Makhijani	R. Taylor A. Rispin	00160756 00160757	Response to Fluometuron Registration Standard by Ciba-Geigy.
1/12/1987	None	1724	G. Makhijani	R. Taylor A. Rispin	None	Ciba-Geigy Response to the Fluometuron Registration Standard.
9/27/1990	None	None; RD Memorandum	A. Smith	R. Taylor	41591601- 41591603	Product Chemistry Review of Technical Fluometuron (EPA ID No. 64085-R)
None	None	None; RD Memorandum	None	None	41655301 41655302	Product Chemistry Review of Data for Chem-Flo, Inc. Technical Fluometuron.
5/1/1992	D169090	8621	L. Cheng	L. Rossi	42017301 42017302	Fluometuron. Ciba-Geigy Response to the Reregistration Standard Update Dated 3/6/90. Nitrosamine Data and Dissociation Constant.
12/30/1992	D185133	10958	D. McNeilly	A. Ertman	42556601	Fluometuron; Product Chemistry Data.
4/12/1993	D186303	11128	A. Aikens	L. Rossi W. Waldrop	42581701- 42581705 42365505	Fluometuron: Phase V Review of Griffin Corp. Response to Fluometuron Reregistration DCI dated 9/11/91: Product Chemistry Data for the 96.5% T. (Chemical No. 035503).
9/10/1993	D193064	12198	R. Perfetti	L. Rossi A. Rathman	42834901 42834902	Response to the Fluometuron Reregistration Standard: Product Chemistry.
3/24/1994	D197178	12893	F. Toghrol	L. Rossi L. Propst	42998701	Fluometuron Reregistration. List A Chemical No. 035503; Case No. 0049. Ciba-Geigy: Response to a Fluometuron DCI Data Requirement Regarding Storage Stability (Guideline # 63-17).
12/20/1996	D230109	17565	S. Funk	P. Deschamp	None	Fluometuron (List A, Case 0049, Chemical 035503). Product Chemistry and Residue Chemistry Chapters for the Reregistration Eligibility Decision Document.

RDI: S. Ary (5/24/2004); K. Dockter (5/27/2004); A. Nielsen (11/3/2004).