Sanitized only

Clariant Corporation

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Clariant

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December 22, 2003

VIA FEDERAL EXPRESS
Ms. Rose Toscano
Document Control Officer
EPA New England, Region 1
1 Congress Street, Suite 1100
Boston MA 02114-2023

Re: Clariant Corporation Additional Documents for Ms. Marianne Milette

Dear Ms. Toscano:

Please find one confidential copy and three company sanitized copies of the following documents:

1. Clariant Corporation letters to pigment customers requesting end-use information.
2. Responses from customers to Clariant.
3. Consolidated Second Tier Customer and End Use Supplement.
4. Second Tier Customer and End Use Supplement.

Please feel free to contact me if any additional information is needed regarding this submittal.

Sincerely,

Erin Russell

Erin Russell

c: Marianne Milette
Mike Teague
John Paul

CONSOLIDATED
SECOND TIER CUSTOMERS
AND END USE SUPPLEMENT

COMPANY SANITIZED COPY
DOES NOT CONTAIN TSCA CONFIDENTIAL BUSINESS INFORMATION

Clariant PA Division Customer Name	2nd Tier Customer Name	Use Code	Product Sold	Weight % Pigment in Product (PCB conc. ppm)	End Use	Weight % Pigment in End Use (PCB conc. ppm)
		1	Color Concentrate	2.3% (max. 15.3 ppm PCB)	Plastic injection molding of doghouses ([redacted]) and kennel	0.0115% (max. 0.08 ppm PCB)
		2	Red PEMB 45415	25%	Polypropylene Fibers	0.2 - 0.5%
		3	Acrylic surfaces (countertops, etc.)			
		4	Hot Stamp Heat Transfer Labels	36 ppm PCB	Labeling on injection molded control knob	<10 ppm PCB
		5	Hot Stamp Heat Transfer Labels	36 ppm PCB	External labeling on intravenous solution bags	<10 ppm PCB
		6	MB Color Concentrate	156 ppm PCB	Film	let down 300:1 (0.52 ppm PCB)
		7	MB Color Concentrate	156 ppm PCB	Packing Tape	let down 140:1 (1.1 ppm PCB)
		8	Masterbatch color concentrates	max. 49 ppm PCB in masterbatch	Carpet fiber	3% max usage rate (1.5 ppm PCB in carpet fiber)
		9	Masterbatch Color Concentrate	25% (29 ppm PCB)	Fiber - carpet, upholstery	let down 20:1 estimated (1.45 pppm PCB)
		10	Masterbatch color concentrate	17 ppm PCB	Tubing for truck air brakes	let down 50:1 (0.344 ppm PCB)
		11	MB Color Concentrate	41 ppm PCB 41 ppm PCB	Snow flap	Let down 10:1 (4.1 ppm PCB)
		12	Masterbatch color concentrate (shipped 110 lbs, they will return 66 lbs)	32 ppm PCB in masterbatch	Fabric and/or carpet for automotive (braided rugs)	2.8% usage rate (0.9 ppm PCB in fiber)
		13	Masterbatch Color Concentrate	18 ppm PCB	Injection molding - lab device/tool	let down 100:1 (0.018 ppm PCB)
		14	MB Color Concentrate	24 ppm PCB 24 ppm PCB 17 ppm PCB	Tool handle	Let down 33:1 (max. 0.73 ppm PCB)
		15	Masterbatch Color Concentrate	66.13ppm	Automotive electrical connectors	let down 100:1 (0.66 ppm PCB)
		16	MB Color Concentrate	67 ppm PCB	Spacer on Automotive Wiring Harness	let down 100:1 (0.67 ppm PCB)
		17	Masterbatch color concentrate for R+D only. No commercial material released		Textiles	
		18	MB Color Concentrate	41 ppm PCB 41 ppm PCB	Snow flap	Let down 10:1 (4.1 ppm PCB)
		19	00032833	Customer did not use and has returned product	Fiber - automotive trunk liner	

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DOES NOT CONTAIN TSCA CONFIDENTIAL BUSINESS INFORMATION

Clariant PA Division Customer Name	2nd Tier Customer Name	Use Code	Product Sold	Weight % Pigment in Product (PCB conc. ppm)	End Use	Weight % Pigment in End Use (PCB conc. ppm)
		20	MB Color Concentrate	19 ppm PCB	Shampoo Cap	let down 25:1 (0.76 ppm PCB)
		21	Masterbatch single pigment concentrate	126 ppm in Masterbatch single pigment concentrate	Carpet fiber	max. 3% usage rate (3.8 ppm PCB)
		22	Masterbatch Color Concentrate	66.13 ppm	Sheet-seals, gaskets	let down 100:1 (0.6613 ppm PCB)
		23	MB Color Concentrate	8 ppm PCB	Fuel, Oil, and refrigerant tubing. Following up for more detail.	let down 67:1 (0.12 ppm PCB)
		24	Masterbatch Color Concentrate	66.13 ppm	went out of business	let down 100:1 (0.6613 ppm PCB)
		25	Masterbatch Color Concentrate	66.13 ppm	Sheet - Point of Purchase dislplay for batteries	let down 100:1 (0.6613 ppm PCB)
		26	Masterbatch Color Concentrate	66.13 ppm	Injection mold security key housing	let down 100:1 (0.6613 ppm PCB)
		27	Masterbatch Color Concentrate	18 ppm PCB	Injection molding - part for arithmetic learning game sold for home schooling	let down 50:1 (0.36 ppm PCB)
		28	MB Color Concentrate	29 ppm PCB	Non-Food Closure (for household cleaning product)	let down 50:1 (max. 0.58 ppm PCB)
		29	MB Color Concentrate	31 ppm PCB	Screwdriver handle	let down 25:1 (1.24 ppm PCB)
		30	Masterbatch Color Concentrate	98ppm	Tubing for truck air brakes	let down 50:1 (max. 1.96 ppm PCB)
		31	Masterbatch color concentrate	1.1% (max. 1.19 ppm PCB)	Believed used in food packaging - meat/poultry trays	let down 20:1 estimated (0.06 ppm PCB)
		32	Masterbatch color concentrate	max 11 ppm PCB	Multi-layer packaging film used as cheese wrap. 0.5mil LLDPE layer between color and food contact surface.	let down 17:1 in film (0.65 ppm PCB)
		33	MB Color Concentrate	2 ppm PCB	Container for used disposable syringes	let down 50:1 (0.04 ppm PCB)
		34	Polypropylene Masterbatch	17.5%	carpet yarn	Unknown
		35	Polypropylene Masterbatch	40%	carpet yarn	Unknown
		36	Polypropylene Masterbatch	17.5%	carpet yarn	Unknown
		37	AQ Pigment Disperson 4324 (Red HTD)	18-20%	Textile Printing	not provided
		38	One Component Epoxy Compound	0.1%	"brushing" epoxy for transformer manufacturing	100g epoxy per approx. 80 lb transformer
		39	Pigment Dispersion	4.7% (max. 31.3 ppm PCB)	Ink	not provided

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DOES NOT CONTAIN TSCA CONFIDENTIAL BUSINESS INFORMATION

Clariant PA Division Customer Name	2nd Tier Customer Name	Use Code	Product Sold	Weight % Pigment in Product (PCB conc. ppm)	End Use	Weight % Pigment in End Use (PCB conc. ppm)
		40	Pigment Dispersion	25% (max. 167 ppm PCB)	Flooring	not provided
		41	Color Concentrate	25% (max. 155 ppm PCB)	Synthetic Fibers	0.1-1% (max. 1.55 ppm PCB)
		42	PLM 4937	40% (max. 280 ppm PCB)	Fiber	0.01-1% (max 2.8 ppm PCB)

SECOND-TIER CUSTOMERS AND END USE SUPPLEMENT

COMPANY SANITIZED COPY DOES NOT CONTAIN TSCA CBI

Clariant PA Division Customer Name	2nd Tier Customer Name	Customer No.	Product Sold	Weight % Pigment in Product (PCB conc. ppm)	End Use	Weight % Pigment in End Use (PCB conc. ppm)
		1	Color Concentrate	2.3% (max. 15.3 ppm PCB)	Plastic injection molding of doghouses ([redacted]) and kennel	0.0115% (max. 0.08 ppm PCB)
		2	Red PEMB 45415	25%	Polypropylene Fibers	0.2 - 0.5%
		3	Acrylic surfaces (countertops, etc.)			
		4a	Hot Stamp Heat Transfer Labels	36 ppm PCB	External labeling on intravenous solution bags	<10 ppm PCB
		4b	Hot Stamp Heat Transfer Labels	36 ppm PCB	External labeling on intravenous solution bags	<10 ppm PCB
		4c	Hot Stamp Heat Transfer Labels	36 ppm PCB	External labeling on intravenous solution bags	<10 ppm PCB
		4d	Hot Stamp Heat Transfer Labels	36 ppm PCB	External labeling on intravenous solution bags	<10 ppm PCB
		4e	Hot Stamp Heat Transfer Labels	36 ppm PCB	Labeling on injection molded control knob	<10 ppm PCB
		4f	Hot Stamp Heat Transfer Labels	36 ppm PCB	External labeling on intravenous solution bags	<10 ppm PCB
		5a	MB Color Concentrate	156 ppm PCB	Film	let down 300:1 (0.52 ppm PCB)
		5b	MB Color Concentrate	156 ppm PCB	Packing Tape	let down 140:1 (1.1 ppm PCB)
		5c	Masterbatch color concentrates	max. 49 ppm PCB in masterbatch	Carpet fiber	3% max usage rate (1.5 ppm PCB in carpet fiber)
		5d	Masterbatch color concentrates	max. 48 ppm PCB in masterbatch	Carpet fiber	3% max usage rate (1.4 ppm PCB in carpet fiber)
		5e	Masterbatch Color Concentrate	25% (29 ppm PCB)	Fiber - carpet, upholstery	let down 20:1 estimated (1.45 pppm PCB)
		5f	Masterbatch color concentrate	17 ppm PCB	Tubing for truck air brakes	let down 50:1 (0.344 ppm PCB)
		5g	Masterbatch color concentrate	16 ppm PCB	Tubing for truck air brakes	let down 50:1 (0.3 ppm PCB)
		5h	MB Color Concentrate	41 ppm PCB 41 ppm PCB	Snow flap	Let down 10:1 (4.1 ppm PCB)
		5i	Masterbatch color concentrate (shipped 110 lbs, they will return 66 lbs)	32 ppm PCB in masterbatch	Fabric and/or carpet for automotive (braided rugs)	2.8% usage rate (0.9 ppm PCB in fiber)
		5j	Masterbatch Color Concentrate	18 ppm PCB	Injection molding - lab device/tool	let down 100:1 (0.018 ppm PCB)
		5k	MB Color Concentrate	24 ppm PCB 24 ppm PCB 17 ppm PCB	Tool handle	Let down 33:1 (max. 0.73 ppm PCB)
		5l	Masterbatch Color Concentrate	66.13ppm	Automotive electrical connectors	let down 100:1 (0.66 ppm PCB)
		5m	MB Color Concentrate	67 ppm PCB	Spacer on Automotive Wiring Harness	let down 100:1 (0.67 ppm PCB)

Clariant PA Division Customer Name	2nd Tier Customer Name	Customer No.	Product Sold	Weight % Pigment In Product (PCB conc. ppm)	End Use	Weight % Pigment In End Use (PCB conc. ppm)
		5n	Masterbatch color concentrate for R+D only. No commercial material released		Textiles	
		5o	MB Color Concentrate	41 ppm PCB 41 ppm PCB	Snow flap	Let down 10:1 (4.1 ppm PCB)
		5p	00032833	Customer did not use and has returned product	Fiber - automotive trunk liner	
		5q	MB Color Concentrate	19 ppm PCB	Shampoo Cap	let down 25:1 (0.76 ppm PCB)
		5r	Masterbatch single pigment concentrate	126 ppm in Masterbatch single pigment concentrate	Carpet fiber	max. 3% usage rate (3.8 ppm PCB)
		5s	Masterbatch Color Concentrate	66.13 ppm	Sheet-seals, gaskets	let down 100:1 (0.6613 ppm PCB)
		5t	MB Color Concentrate	8 ppm PCB	Fuel, Oil, and refrigerant tubing. Following up for more detail.	let down 67:1 (0.12 ppm PCB)
		5u	Masterbatch Color Concentrate	66.13 ppm	went out of business	let down 100:1 (0.6613 ppm PCB)
		5v	Masterbatch Color Concentrate	66.13 ppm	Sheet - Point of Purchase display for batteries	let down 100:1 (0.6613 ppm PCB)
		5w	Masterbatch Color Concentrate	66.13 ppm	Injection mold security key housing	let down 100:1 (0.6613 ppm PCB)
		5x	Masterbatch Color Concentrate	18 ppm PCB	Injection molding - part for arithmetic learning game sold for home schooling	let down 50:1 (0.36 ppm PCB)
		5y	MB Color Concentrate	5 ppm PCB 4 ppm PCB 29 ppm PCB 27 ppm PCB 20 ppm PCB	Non-Food Closure (for household cleaning product)	let down 50:1 (max. 0.58 ppm PCB)
		5z	MB Color Concentrate	31 ppm PCB 31ppm PCB	Screwdriver handle	let down 25:1 (1.24 ppm PCB)
		5aa	Masterbatch Color Concentrate	88 ppm 98ppm 98ppm 62ppm	Tubing for truck air brakes	let down 50:1 (max. 1.96 ppm PCB)
		5bb	Masterbatch color concentrate	1.1% (max. 1.19 ppm PCB)	Believed used in food packaging - meat/poultry trays	let down 20:1 estimated (0.06 ppm PCB)
		5cc	Masterbatch color concentrate	max 11 ppm PCB	Multi-layer packaging film used as cheese wrap. 0.5mil LLDPE layer between color and food contact surface.	let down 17:1 in film (0.65 ppm PCB)

Clariant PA Division Customer Name	2nd Tier Customer Name	Customer No.	Product Sold	Weight % Pigment in Product (PCB conc. ppm)	End Use	Weight % Pigment in End Use (PCB conc. ppm)
		5dd	MB Color Concentrate	0.3 ppm PCB 2 ppm PCB 0.3 ppm PCB 0.4 ppm PCB 2 ppm PCB 2 ppm PCB	Container for used disposable syringes	let down 50:1 (0.04 ppm PCB)
		6a	Polypropylene Masterbatch	17.5%	carpet yarn	Unknown
		6b	Polypropylene Masterbatch	40%	carpet yarn	Unknown
		6c	Polypropylene Masterbatch	17.5%	carpet yarn	Unknown
		7	AQ Pigment Disperson 4324 (Red HTD)	18-20%	Textile Printing	not provided
		8	One Component Epoxy Compound	0.1%	"brushing" epoxy for transformer manufacturing	100g epoxy per approx. 80 lb transformer
		9	Used for in-house testing only. No commercial products released for sale. 47 lbs pigment sold; 31 lbs were returned			
		10	Color Concentrate	max. 21% (16 ppm PCB)	Have stated they will not provide this information to Clariant	Have stated they will not provide this information to Clariant
		11			Ink	
		12a	Pigment Dispersion	4.7% (max. 31.3 ppm PCB)	Ink	not provided
		12b	Pigment Dispersion	25% (max. 167 ppm PCB)	Flooring	not provided
		13	Color Concentrate (based on Clariant knowledge)			
		14	Color Concentrate	25% (max. 155 ppm PCB)	Synthetic Fibers	0.1-1% (max. 1.55 ppm PCB)
		15a	PPM 486202	25% (max. 175 ppm PCB)	Fiber	0.01-1% (max. 1.75 ppm PCB)
		15b	PLM 4937	40% (max. 280 ppm PCB)	Fiber	0.01-1% (max 2.8 ppm PCB)
		16c	PTM 41791	30% (max. 210 ppm PCB)	Fiber	0.01-1% (max. 2.1 ppm PCB)
		16d	PTM 41791	30% (max. 210 ppm PCB)	Fiber	0.01-1% (max. 2.1 ppm PCB)
		16e	PTM 41791	30% (max. 210 ppm PCB)	Fiber	0.01-1% (max. 2.1 ppm PCB)
		16f	PPM 486202	25% (max. 175 ppm PCB)	Fiber	0.01-1% (max. 1.75 ppm PCB)

Company Sanitized
Does Not Contain TSCA CBI

Customer Name	Customer Address	Type Product Sold	Product Color	Dates Sold	Weight of Pigment in Product	End Use
		Acrylic Sheet	6561	11/01/02-9/23/03	6.2E-02	Thermoformed Plumbingware (e.g., tub surround, bathtub, etc.)
		Acrylic Sheet	6562	11/01/02-9/23/03	9.6E-02	Thermoformed Plumbingware (e.g., tub surround, bathtub, etc.)
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9531	11/01/02-9/23/03	4.6E-03	Thermoformed Spa water basin
		Acrylic Sheet	6473	11/01/02-9/23/03	9.1E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin

Company Sanitized
Does Not Contain TSCA CBI

Customer Name	Customer Address	Type Product Sold	Product Color	Dates Sold	Weight of Pigment in Product	End Use
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9546	11/01/02-9/23/03	3.0E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9548	11/01/02-9/23/03	1.9E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	17E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	0.015	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9163	11/01/02-9/23/03	2,6E-02	Solid Surface Countertop
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9566	11/01/02-9/23/03	8.4E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin

Company Sanitized
Does Not Contain TSCA CBI

Customer Name	Customer Address	Type Product Sold	Product Color	Dates Sold	Weight of Pigment in Product	End Use
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9531	11/01/02-9/23/03	4.6E-03	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9531	11/01/02-9/23/03	4.6E-03	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9543	11/01/02-9/23/03	3.0E-03	Thermoformed Spa water basin
		Acrylic Sheet	9546	11/01/02-9/23/03	3.0E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9543	11/01/02-9/23/03	3.0E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9160	11/01/02-9/23/03	8.6E-03	Solid Surface Countertop
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9543	11/01/02-9/23/03	3.0E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9566	11/01/02-9/23/03	8.4E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin

Company Sanitized
Does Not Contain TSCA CBI

Customer Name	Customer Address	Type Product Sold	Product Color	Dates Sold	Weight of Pigment in Product	End Use
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E--04	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/08	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E--03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/30	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9566	11/01/02-9/23/03	8.4E-04	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9543	11/01/02-9/23/03	3.0E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9587	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	6562	11/01/02-9/23/03	9.6E-02	Thermoformed Plumbingware (e.g., tub surround, bathtub, etc.)

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Customer Name	Customer Address	Type Product Sold	Product Color	Dates Sold	Weight of Pigment in Product	End Use
		Acrylic Sheet	6562	11/01/02-9/23/03	9.6E-02	Thermoformed Plumbingware (e.g., tub surround, bathtub, etc.)
		Acrylic Sheet	6473	11/01/02-9/23/03	9.1E-04	Thermoformed Plumbingware (e.g., tub surround, bathtub, etc.)
		Acrylic Sheet	6473	11/01/02-9/23/03	9.1E-04	Thermoformed Plumbingware (e.g., tub surround, bathtub, etc.)
		Acrylic Sheet	6473	11/01/02-9/23/03	9.1E-04	Thermoformed Plumbingware (e.g., tub surround, bathtub, etc.)
		Acrylic Sheet	6473	11/01/02-9/23/03	9.1E-04	Thermoformed Plumbingware (e.g., tub surround, bathtub, etc.)
		Acrylic Sheet	6473	11/01/02-9/23/03	9.1E-04	Thermoformed Plumbingware (e.g., tub surround, bathtub, etc.)
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9548	11/01/02-9/23/03	1.9E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	96087	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9615	11/01/02-9/23/03	1.5E-02	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin

Company Sanitized
Does Not Contain TSCA CBI

Customer Name	Customer Address	Type Product Sold	Product Color	Dates Sold	Weight of Pigment in Product	End Use
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.5E-04	Thermoformed Spa water basin
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	3015	11/01/02-9/23/03	2.0E-04	Solid Surface Countertop
		Acrylic Sheet	6562	11/01/02-9/23/03	9.6E-02	Thermoformed Plumbingware (e.g., tub surround, bathtub, etc.)
		Acrylic Sheet	9163	11/01/02-9/23/03	2.6E-02	Solid Surface Countertop
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9163	11/01/02-9/23/03	2.6E-02	Solid Surface Countertop
		Acrylic Sheet	9163	11/01/02-9/23/03	2.6E-02	Solid Surface Countertop
		Acrylic Sheet	9260	11/01/02-9/23/03	8.6E-03	Solid Surface Countertop
		Acrylic Sheet	9542	11/01/02-9/23/03	1.5E-03	Thermoformed Spa water basin
		Acrylic Sheet	9563	11/01/02-9/23/03	1.7E-03	Thermoformed Spa water basin
		Acrylic Sheet	9160	11/01/02-9/23/03	8.60E-03	Solid Surface Countertop
		Acrylic Sheet	9163	11/01/02-9/23/03	2.60E-02	Solid Surface Countertop
		Acrylic Sheet	9160	11/01/02-9/23/03	8.60E-03	Thermoformed Spa water basin
		Acrylic Sheet	9163	11/01/02-9/23/03	2.60E-02	Solid Surface Countertop
		Acrylic Sheet	9163	11/01/02-9/23/03	2.60E-02	Solid Surface Countertop
		Acrylic Sheet	9563	11/01/02-9/23/03	1.70E-03	Thermoformed Spa water basin
		Acrylic Sheet	9608	11/01/02-9/23/03	9.50E-04	Thermoformed Spa water basin

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Categories of End Use

- Industrial applications
- Consumer Items
- Commercial items requiring additional research

13 January 29,2004

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Risk Assessment Considerations I:

Discussion of draft assessment of carpet fiber

14 January 29,2004

Priority exposures: carpeting textiles (inks)

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Discussion of draft assessment of carpet fiber

- **The assumptions we make are as follows:**
  - Typical carpet fiber is 2.4 ppm PCB by weight (data provided by manufacturer).
  - The dioxin TEQ for the PCB mixture is about $1x10^{-7}$. The origin of this TEQ is described in our draft risk assessment.
  - We assume that from the ages of 2 to 5 (4 years) children ingest 50 mg of carpet lint per day. This is ½ the mean soil ingestion recommended in USEPA 2002. This is conservative because carpets are designed to wear well and thus their fibers are difficult to remove.

TEQ .0176 1st 214
67,000 .0481 214
364 .0499 144
547

15 January 29,2004

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Discussion of draft assessment of carpet fiber

- **The assumptions (2):**
  - 20% of the PCB incorporated in carpet fiber is bioavailable. That is we assume that 1/5 of all PCB ingested is absorbed by the body. We believe the conservatism inherent in this assumption is at least an order of magnitude.
  - Children weigh an average of 15 kg (this is slightly less than the average weight for 3 year olds recommended in EPA 2002.

PCB part of pigment

Used pesticide analysis

16 January 29,2004

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Origin of Our Dioxin TEQ

- The lab gave the TEQ for the pigment as 0.048.
- TEQ stated by the lab means that 1 gram of the pigment is equivalent to 0.048 nanogram (10^{-9} gram) of dioxin.
- Thus the TEQ for the pigment is 4.8×10^{-11} However in the *sample analyzed* the total PCB concentration is about 500 ppm, and all of the actual toxicity is in the 1/2000th of the pigment that is PCB. (500/1,000,000 = 1/2000)
- To get TEQ for the PCB mixture we have to multiply the TEQ for the pigment by 2000. So we have $4.8 \times 10^{-11} \times 2000 = 9.6 \times 10^{-8}$ gram TEQ per gram PCB, or about 1×10^{-7}.

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Carpet fiber risk calculation

- Daily intake of PCB (IP) = 50 mg (weight of fibers ingested) x 2.4×10^{-6} (weight fraction of PCB in carper fiber) = 0.00012 mg
- Lifetime average daily dose in mg/kg/day = 0.00012 mg (IP) x 0.2 (uptake fraction) / 15kg (body weight) x (4/70) (exposure 4 out of 70 years) = 9.14×10^{-8} mg/kg/day
- The EPA maximum cancer potency for PCB's is 2 per mg/kg/day. However, our PCB mixture is only 0.4% PCB's with more than 4 chlorines so we use the "Lowest Risk and Persistence" cancer potency which is 0.07 per mg/kg/day.

could change based on data longer distribution

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Carpet fiber risk calculation (2)

- Thus the overall PCB risk R_{PCB} is:
  - $R_{PCB} = 9.14 \times 10^{-8}$ mg/kg/day x 0.07 /mg/kg/day = 6.4×10^{-9}
- We then have to do our dioxin equivalent risk (RD):
  - $R_D = 9.14 \times 10^{-8}$ mg/kg/day x 150,000 (the dioxin potency factor) x 1 x 10^{-7} (the TEQ for our PCB mixture) = 1.37×10^{-9}
- Our total risk (R_T) is then:
  - $R_T = 6.4 \times 10^{-9} + 1.37 \times 10^{-9} = 7.8 \times 10^{-9}$

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Carpet fiber risk Discussion

- The total calculated risk of about 7.8×10^{-9} is more than 100 times less than 1 in 1,000,000.
- Moreover, there is significant conservatism inherent in our analysis.
  - First, it is unlikely that a child would actually ingest 50 mg/day of carpet lint.
  - Second PCB's are embedded in a nylon matrix. We feel there is little chance of as much as 5% let alone 20% being extracted in the digestive system.
  - These two factors taken together suggest that a more realistic risk number would be at least a factor of 100 less than that calculated.

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Risk Assessment Considerations II.

- For the purpose of soil cleanups, EPA defines less than 1 ppm in soil as "clean soil."
- If 1 ppm is clean for soil, anything less than 1 ppm in the final end use might be considered de miminis.
  - PCB's in soil are likely to be much more bio-available than PCB's in our end use products
  - Ingestion and dermal contact exposures are likely to be much higher for soil than for our end use products.

21 January 29,2004

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Pigment Use Sectors: Estimated PCB concentration in ( ).

- Industrial Applications
  - 100 grams "brushing" epoxy in 80 lb. transformer. (epoxy <0.1 ppm PCB)
  - Automotive electrical connectors (0.66 ppm PCB)
  - Container for used disposable syringes (0.04 ppm PCB)
  - Fuel, Oil, and refrigerant tubing. (0.12 ppm PCB)
  - Injection mold: security key, housing, lab device/tool (<10 ppm PCB)
  - Labeling on injection mold: control knob (<10 ppm PCB)
  - Screwdriver handle (0.73 ppm PCB)
  - Sheet - Point of Purchase display for batteries. (0.6613 ppm PCB)
  - Sheet-seals. gaskets (0.6613 ppm PCB)
  - Snow flap (1.1 ppm PCB)
  - Spacer on Automotive Wiring Harness (0.67 ppm PCB)
  - Tool handle (0.73 ppm PCB)
  - Tubing for truck air brakes (1.96 ppm PCB)
  - External labeling on [illegible] solution bags (<10 ppm PCB)

FDA assessment by Keller & Hagman showed no issue - according to client. Clariant hasn't seen the work.

22 January 29,2004

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Pigment Use Sectors: Estimated PCB concentration in ( ).

- Consumer Items
  - Acrylic Sheet (Hot tub/spa shells; countertops) (0.1 ppm PCB max)
  - [illegible]
  - [illegible]
  - [illegible]
  - [illegible]
  - Screwdriver handle (0.73 ppm PCB)
  - Tool handle (0.73 ppm PCB)
  - Shampoo cap (0.76 ppm PCB)
  - Injection molding - part for arithmetic learning game (0.36 ppm PCB)
  - Food packaging for meat/poultry (0.06 ppm PCB)
  - Multilayer cheese wrap - 0.5mil LLDPE layer between color and food contact surface. (0.65 ppm PCB)
  - Non-Food Closure (for household cleaning product) (0.58 ppm PCB)
  - Injection molded pet house (0.08 ppm PCB)

23 January 29,2004

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Pigment Use Sectors: PCB concentration, end use or both unknown

- **Commercial items requiring additional research**
  - Ink on wood furniture (PCB ppm unknown)
  - Ink (PCB ppm unknown)
  - Textile printing (PCB ppm unknown)
  - Flooring (PCB ppm unknown) - tile / linoleum.
  - Film (0.52 ppm PCB)

24 January 29,2004

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Areas of Concern

- Carpet and upholstery fibers have the greatest potential for human exposure
  - Potentially present in the home environment in large quantity
  - Potential for exposure for both dermal exposure and ingestion & inhalation
  - High surface to volume ratio maximizes potential for PCB transfer.
- Our preliminary highly conservative risk assessment for carpet showed low risk.

more sensitive populations

25 January 29,2004

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Next Steps

- A key issue in risk assessment is the congener composition of the PCB's in the pigment
  - We propose to validate the congener composition by having a state of the art congener specific analysis performed on the 6 pigment lots (of 19) and 4 presscake lots (of 10) that had the highest concentration for total PCB's.
- Bioavailability is a second key issue
  - We propose to verify the low bioavailability of PCB's in carpet fiber with an appropriate laboratory study.

26 January 29,2004

K.T.

Company Sanitized – Contains no CBI

Company Name:

Company Address:

Contact Name:

Contact Telephone:

Contact E-mail:

Please complete this section with your customer information.

Customer name:

Customer Address:

Contact Name:

Contact Telephone:

Type of Product Sold:	Color Compound
Dates Sold:	12/02
Amount of Pigment in Product (weight %):	25%
End Use:	fibers
Amount of Pigment in End Use Product:	N/A

COMPANY SANITIZED - DOES NOT CONTAIN TSCA CBI

INSTRUCTIONS: Complete one form for each customer that received your products containing either of the Clariant pigment products that we previously notified you contained impurities. Fax each form to Mike Teague at (704) 331-7105 by Novembe 2003.

Please check the accuracy of the information in this section and make any correction then duplicate the form as necessary.

Company Name:	
Company Address:	
Contact Name:	
Contact Telephone:	
Contact E-mail:	

Please complete this section with your customer information.

Customer name:	
Customer Address:	
Contact Name:	
Contact Telephone:	
Type of Product Sold:	PRINTING INKS
Dates Sold:	THROUGHOUT THE YEAR
Amount of Pigment in Product (weight %):	4.74 %
End Use:	WOOD FURNITURE
Amount of Pigment in End Use Product:	?