

Heinz J. Eiermann, (HFF-440) January 7, 1976
Director, Division of Cosmetics Technology
THROUGH: Henry M. Davis, (HFF-446) *Analyses of Commercial Cosmetic
Talc by X-Ray Diffraction.* This
table Chief, Product Composition Branch S. Z. Lewin's results
for all samples analyzed.

Ronald L. Yates, (HFF-446)
Product Composition Branch

Ronald L. Yates
Tabulated Results of DCST's Analyses for Asbestos Minerals in Talc Samples Reported by Lewin to contain Tremolite and/or Chrysotile. Information in this table was extracted from the master table and lists only those samples which Lewin reported the presence of asbestos minerals.

*HFF-441 Mr. Schneider
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Attached are a series of tables summarizing data obtained from the DCST analyses of cosmetic talc products for asbestos minerals. Also included, for purposes of comparison, are Dr. S. Z. Lewin's analytical data obtained by x-ray diffractometry.

Attachments:

- a. Master table. "Summary Table of Results of the Investigations of Commercial Cosmetic Talc Products For Asbestos Minerals by S. Z. Lewin and the Division of Cosmetic Technology." This table contains analytical data of all the Lewin samples analyzed by DCST. Included is Lewin's data on these samples.
- b. Table I. "Summary of Results of DCST's Analyses For Asbestos Minerals in Talc Samples Reported by Lewin to contain Tremolite and/or Chrysotile." Information in this table was extracted from the master table and lists only those samples which Lewin reported the presence of asbestos minerals.
- c. Table II. "Cosmetic Talcs Analyzed by Lewin and Reported to Contain Chrysotile and/or Tremolite which were not Analyzed by DCST by Either DTA or Optical Microscopy." DCST does not possess the samples listed in this table and, therefore, were unable to analyze them.
- d. Table III. "Summary of DCST's Analyses of Cosmetic Talc Products by Differential Thermal Analysis (DTA) and Optical Microscopy." This table summarizes, by number of samples, DCST's analyses of talc samples from all sources.

- e. Table IV. "Summary of S. Z. Levin's Analyses of Commercial Cosmetic Talcs For Tremolite and Chrysotile by X-Ray Diffraction." This table summarizes, by number of samples, S. Z. Levin's results for all samples analyzed.

Ronald L. Yates
Product Composition Branch

(b) (5)

SAMPLE #	PRODUCT NAME AND MFG.	CODE
14	Desitin Baby Powder, Antibacterial; Pfizer	(1139Z)
26	Helen Pressl "Little Lady"	
29	Johnson's Baby Powder	(028Q)
35	Lewis Baby Powder	
37	Macy's Scented Borated Talcum	
38	Macy's Talcum, Apple	(2K4)
42	Mennen Quinsana Foot Powder	(H202)
50	Quest Deodorant Powder;	
52	Riviana Foods-Italian Stearin Talc; For Rice	
53	September Morn By Pond's	(19B)
54	Seven Winds After Bath Talc; DuBarry	(021085)
56	Vaseline Intensive Care Baby Powder (same as 130)	(I209)
57	Yves Saint Laurent Rive Gauche Spray Talc	
58	Z B T Baby Powder	(F1021)
59	Zeasorb Super Absorbent Medicated Powder; Stiefel	
60	Ambush-Dana Dusting Powder	
61	April Showers	(9884)
62	Avon Unforgettable Perfumed Talc	
63	Beloved Perfumed Dusting Powder, Prince Matchabelli	

S. Z. Lewin's Results (X-Ray Diff.)

Tremolite (fiber/mg) Chrysotile
Optical Microscopy (%) - DTA

Tremolite (%)	Chrysotile (%)		
ND (2)	ND	-	ND
ND	?	ND	ND
ND	ND	ND	ND
ND	ND	-	ND
ND	ND	200 (.02%) (3)	ND
ND	ND	-	ND
ND	ND	600 (.06%)	?
ND	ND	-	ND
ND	ND	-	ND
ND	ND	-	ND
ND	?	-	ND
ND	ND	-	ND
ND	ND	-	ND
ND	ND	-	ND
ND	ND	-	ND
ND	ND	-	ND
ND	ND	700 (.07%)	ND
ND	ND	-	ND
5%	ND	36,000 (3.6%)	ND

68	Faberge Flambeau Deodorant Spray Powder	(37WBF)
70	Jeris Talc, Flesh A & B	
71	Jolie Madame Dusting Powder, Balmain	
72	Lady Esther Face Powder, Rachel	
73	A&B Max Factor Face Powder, Rachelle	
74	Medicated Comfort Powder; Parke-Davis	
75	OH! de London Talc; Yardley	(498)
77	Touch and Glow Face Powder, Creamy Peach; Revlon	
78	Toujours Moi Bath Powder; Corday	
79	Yardley April Violets	(4908)
80	Chantilly Dusting Powder; Houbigant	(11F)
81	Cashmere Bouquet, Imported White Talcum Powder	
82	Jean Nate Talc	(on 345)
84	Shower To Shower Body Powder; Johnson & Johnson	(5507BG)
85	Pure Baby Powder, Eart Drug	(K11C)
86	Pond's Dream Flower Perfumed Talc	(013D)
87	Almay Hypo-Allergenic Face Powder	
88	Constance Carroll, Bouquet Talc	
89	Djer-Kiss Talcum; Kerkoff	
90	Flamingo Dusting Powder, Tussy	(L1047)
92	Mavis Talcum; Vivaudou	

IND

IND

ND

ND

500 (.05%)

ND

3%

ND

ND

ND

ND

ND

ND

ND

ND

ND

-

ND

ND

ND

3,300 (.33%)

ND

ND

ND

-

?

3%

ND

2,800 (.28%)

?

5%

ND

96,000 (9.6%)

ND

ND

ND

-

ND

ND

?

ND

ND

ND

?

ND

ND

ND

?

-

ND

ND

?

-

ND

ND

?

ND

ND

ND

?

-

ND

ND

?

-

ND

4%

5%

7,000 (.7%)

ND

5%

5%

2,900 (.29%)

ND

3%

5%

4,000 (.4%)

ND

5%

5%

7,300 (.73%)

ND

94	Tangee; Luft-Tangee	
95	ZBT Baby Powder	(B0048)
96	Blanchard's Dusting Powder	
97	Born Wild Dusting Powder; Del Labs	
99	A&B Lander Lilacs and Roses Deodorant Body Talc	
100	Miss Dior Dusting Powder	
101	Tai Winds Spray Talc; Avon	(DCC1272)
102	A&B Tosca Dusting Powder	
107	Coty Muguet des Bois Dusting Powder	(2D0)
131	Johnson & Johnson Medicated Powder	(1171K)
133	Johnson's Baby Powder	(108T)
134	Johnson's Baby Powder	(109T)
135	Johnson & Johnson Medicated Powder	(0452K)
136	Johnson & Johnson Shower to Shower Body Powder	(C512Z)
137	Johnson & Johnson Shower to Shower Body Powder	(0709X1)
138	Johnson & Johnson Shower to Shower Body Powder	(0872K)
143	Pin-Zow Talque; Perfection Beauty Products, Inc.	
144A	Overton's "High-Brown" Face Powder	
145	Softee Face Powder	
148	Lady Wayne Face Powder	
149	Solitaire Cake Makeup	

4%	?	2,500 (.25%)	ND
2%	3%	300 (.03%)	ND
8%	10%	5,600 (.56%)	-
12%	15%	13,000 (1.3%)	ND
ND	ND	ND	ND
ND	ND	trace	-
15%	ND	60,000 (6%)	ND
10%	7%	8,900 (.89%)	ND
ND	ND	ND	-
trace	ND	ND	ND
ND	ND	ND	ND
ND	ND	ND	ND
ND	ND	ND	ND
ND	ND	ND	ND
ND	ND	ND	ND
ND	ND	ND	ND
5%	10%	1,800 (.18%)	-
5%	?	400 (.04%)	ND
ND	2%	ND	ND
2%	ND	trace	ND
8%	?	3,000 (.3%)	ND

152	Corsage Dusting Powder; Lander	
153	Ammens Powder, Medicated	
154	Bismoline Medicated Powder	
155	Rite Aid Pure Baby Powder	
156	Warner Pure Baby Powder	
157A	Mavis Imported Talcum	
158	Avon Brocade Perfumed Talc	
159	Avon Blue Lotus Perfumed Talc	
160	Avon Beauty Dust Refill - Charisma	
163	Pinaud Clubman Talc	
164	Grand Union Baby Powder	(101672)
165	Cashmere Bouquet	(4212DX)
167	Tawny Tone Body Talc From Black Heritage; Beauty Mustus, Inc.	
168	Colgate Tooth Powder	
169	Dr. Lyon's Tooth Powder	
170A	"C" Bouquet Talc; Winarick, Inc.	(2662)
173A	Corsage Dusting Powder; Lander Co.	
175A	Lander Baby Powder	
176A	Lander Lilac & Roses Body Talc	

ND	ND	ND	-
ND	ND	ND	?
2%	ND	200 (.02%)	-
ND	?	ND	ND
2%	ND	200 (.02%)	ND
6%	8%	9,000 (.9%)	ND
ND	ND	ND	ND
ND	?	ND	ND
ND	trace	ND	ND
10%	10%	9,000 (.9%)	-
ND	1%	trace	-
ND	?	ND	ND
2%	ND	ND	ND
ND	ND	ND	ND
ND	ND	ND	ND
ND	8%	6,300 (.63%)	ND
ND	?	-	?
ND	?	-	ND
ND	?	-	ND

194 Tinkerbelle Dusting Powder; Tom Fields, Ltd.

ND

?

-

ND

(1) Results are shown for only those talc products analyzed by both Lewin and DCST.

(2) ND - Not Detected

(3) DCST tremolite % is based on following conversion: 1000 fibers/mg talc = 0.1% tremolite
where average tremolite fiber dimensions are $5 \times 15 \mu\text{m}$.
If it is assumed that microscopist sees 10% of fibers present, % values would be
increased 1 order of magnitude.

TREMOLITE AND/OR CHRYSOTILE

Sample No.	S. Z. Lewin's Results (X-Ray Diff.)		DCST'S Results	
	Tremolite (%)	Chrysotile (%)	Tremolite (fiber/mg) Optical Microscopy	Chrysotile (%)-DTA
63	5	ND	36,000 (3.6%)	ND
71	3	ND	ND	ND
77	3	ND	2,800 (0.28%)	?
78	5	ND	96,000 (9.6%)	ND
88	4	5	7,000 (0.7%)	ND
89	5	5	2,900 (0.29%)	ND
90	3	5	4,000 (0.4%)	ND
92	5	5	7,300 (0.73%)	ND
93	5	4	5,100 (0.51%)	ND
94	4	?	2,500 (0.25%)	ND
95	2	3	300 (0.03%)	ND
96	8	10	5,600 (0.56%)	---
97	12	15	13,000 (1.3%)	ND
101	15	ND	60,000 (6%)	ND
102	10	7	8,900 (0.89%)	ND
131	trace	ND	ND	ND

Tremolite (%)

143	5
144A	5
145	ND
148	2
149	8
154	2
156	2
157A	6
160	ND
163	10
164	ND
167	2
170A	ND

Chrysotile (%)	Tremolite (fiber/mg) Optical Microscopy	Chrysotile (%)-DTA
10	1,800 (.18%)	---
?	400 (.04%)	ND
2	ND	ND
ND	trace	ND
?	3,000 (0.3%)	ND
ND	200 (0.02%)	ND
ND	200 (0.02%)	ND
8	9,000 (0.9%)	ND
trace	ND	ND
10	9,000 (0.9%)	---
1	trace	---
ND	ND	ND
8	6,300 (0.63%)	ND

COSMETIC TALCS ANALYZED BY LEWIN AND
REPORTED TO CONTAIN CHRYSOTILE AND/OR TREMOLITE
WHICH WERE NOT ANALYZED BY DCST
BY EITHER DTA OR OPTICAL MICROSCOPY

<u>Sample No.</u>	<u>Lewin Results (X-Ray Diff.)</u>	
	<u>Tremolite</u>	<u>Chrysotile</u>
66	ND	2%
67	2%	ND
76	5%	ND
91	ND	5%
108	2%	ND
109	2%	?
111	1%	ND
130	trace	trace
172	2%	ND
183	1%	?
184	3%	ND
187	2%	ND
188	1%	?
189	1%	ND

According to John Stuart's notes, the above samples are not present in the lot of Lewin's samples. Inventory of Lewin's talcs verified that DCST does not possess the above samples.

BY DIFFERENTIAL THERMAL ANALYSIS (DTA) AND OPTICAL MICROSCOPY (OM)

Analytical Method	Differential Thermal Analysis			Optical Microscopy		
Source	S. Z. Lewin	FAS	Investigational and Consumer	S. Z. Lewin	FAS	Investigational and Consumer
Total Analyzed	78	~~76~~ ~~82~~	2	57(1)	~~51~~ 47	11 5
Chrysotile Detected	5?(2)	0	0	0	0	0
Tremolite Detected	NA	NA	NA	30	0	0

- (1) Includes 25 of 37 samples in which S. Z. Lewin reported presence of tremolite by x-ray diffraction. DCST detected tremolite in 22 of the 25 samples. DCST detected tremolite in 8 samples where S. Z. Lewin reported none detected.
- (2) Results on all 5 samples were ambiguous due to interferences and/or low levels of chrysotile.

TABLE IV

SUMMARY OF S. Z. LEWIN'S ANALYSES OF COMMERCIAL COSMETIC TALCS
FOR TREMOLITE AND CHRYSOTILE BY X-RAY DIFFRACTION

<u>No. of Samples Analyzed</u>	<u>Samples Only Chrysotile Detected</u>	<u>Samples Only Tremolite Detected</u>	<u>Samples Tremolite and Chrysotile Detected</u>
195	6	24	13