

# MEMORANDUM

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
PUBLIC HEALTH SERVICE  
FOOD AND DRUG ADMINISTRATION

TO : Heinz J. Eiermann, (HFF-440)  
Director, Division of Cosmetics Technology  
THROUGH: Henry M. Davis, (HFF-446) *[Signature]*  
Chief, Product Composition Branch

DATE: January 7, 1976

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

SUBJECT: Tabulated Results of DCST's Analyses for Asbestos Minerals in Lewin, Field Activity Surveillance (FAS), Investigational and Consumer Cosmetic Talc Products.

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:

- 85 samples*
- 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 Cosmetics Technology." This table contains analytical data of all the Lewin samples analyzed by DCST. Included is Lewin's data on these samples.
- 29 samples  
confirmation of  
+ tremolite, were  
containing chrysotile  
14 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.

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D-7113

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

*Ronald L. Yates*

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Product Composition Branch

SUMMARY TABLE OF RESULTS OF THE INVESTIGATIONS OF COMMERCIAL COSMETIC  
TALC PRODUCTS FOR ASBESTOS MINERALS BY S. Z. LEWIN AND THE DIVISION OF COSMETICS TECHNOLOGY (1)

SAMPLE #	PRODUCT NAME AND MFG.	CODE	S. Z. Lewin's Results (X-Ray Diff.)		DCST's Results	
			Tremolite (%)	Chrysotile (%)	Tremolite (fiber/mg) Optical Microscopy	Chrysotile (%) - DTA
14	Desitin Baby Powder, Antibacterial; Pfizer	(1139Z)	ND (2)	ND	-	ND
26	Helen Pressl "Little Lady"		ND	?	ND	ND
29	Johnson's Baby Powder	(028Q)	ND	ND	ND	ND
35	Lewis Baby Powder		ND	ND	-	ND
37	Macy's Scented Borated Talcum		ND	ND	200 (.02%) (3)	ND
38	Macy's Talcum, Apple	(2K4)	ND	ND	-	ND
42	Mennen Quinsana Foot Powder	(H202)	ND	ND	600 (.06%)	?
50	Quest Deodorant Powder;		ND	ND	-	ND
52	Riviana Foods-Italian Stearin Talc; For Rice		ND	ND	-	ND
53	September Morn By Pond's	(19B)	ND	ND	-	ND
54	Seven Winds After Bath Talc; DuBarry	(021085)	ND	?	-	ND
56	Vaseline Intensive Care Baby Powder (same as 130)	(I209)	ND	ND	-	ND
57	Yves Saint Laurent Rive Gauche Spray Talc		ND	ND	-	ND
58	Z B T Baby Powder	(F1021)	ND	ND	-	ND
59	Zeasorb Super Absorbent Medicated Powder; Stiefel		ND	ND	-	ND
60	Ambush-Dana Dusting Powder		ND	ND	-	ND
61	April Showers	(9884)	ND	ND	700 (.07%)	ND
62	Avon Unforgettable Perfumed Talc		ND	ND	-	ND
63	Beloved Perfumed Dusting Powder, Prince Matchabelli		5%	ND	36,000 (3.6%)	ND

SAMPLE #	PRODUCT NAME AND MFG.	CODE	S. Z. Lewin's Results (X-Ray Diff.)		Trenolite (11002/1103, ...) Optical Microscopy (%) - DTA	
			Trenolite (%)	Chrysotile (%)		
64	Coty Face Powder Rachel (Airspun)		ND	ND	-	ND
68	Faberge Flambeau Deodorant Spray Powder	(37WBF)	ND	ND	-	ND
70	Jeris Talc, Flesh A & B		ND	ND	500 (.05%)	ND
71	Jolie Madame Dusting Powder, Balmain		3%	ND	ND	ND
72	Lady Esther Face Powder, Rachel		ND	ND	ND	ND
73	A&B Max Factor Face Powder, Rachelle		ND	ND	-	ND
74	Medicated Comfort Powder; Parke-Davis		ND	ND	3,300 (.33%)	ND
75	OH! de London Talc; Yardley	(498)	ND	ND	-	?
77	Touch and Glow Face Powder, Creamy Peach; Revlon		3%	ND	2,800 (.28%)	?
78	Toujours Moi Bath Powder; Corday		5%	ND	96,000 (9.6%)	ND
79	Yardley April Violets	(4908)	ND	ND	-	ND
80	Chantilly Dusting Powder; Houbigant	(11F)	ND	?	ND	ND
81	Cashmere Bouquet, Imported White Talcum Powder		ND	?	ND	ND
82	Jean Nate Talc	(on 345)	ND	?	-	ND
84	Shower To Shower Body Powder; Johnson & Johnson	(5507BG)	ND	?	-	ND
85	Pure Baby Powder, Dart Drug	(K11C)	ND	?	ND	ND
86	Pond's Dream Flower Perfumed Talc	(013D)	ND	?	-	ND
87	Almay Hypo-Allergenic Face Powder		ND	?	-	ND
88	Constance Carroll, Bouquet Talc		4%	5%	7,000 (.7%)	ND
89	Djer-Kiss Talcum; Kerkoff		5%	5%	2,900 (.29%)	ND
90	Flamingo Dusting Powder, Tussy	(L1047)	3%	5%	4,000 (.4%)	ND
92	Mavis Talcum; Vivaudou		5%	5%	7,300 (.73%)	ND

SAMPLE #	PRODUCT NAME AND MFG.	CODE	S. Z. Lewin's Results (X-Ray Diff.)		DCST's Results	
			Tremolite (%)	Chrysotile (%)	Tremolite (fiber/ng) Optical Microscopy	Chrysotile (%) - DTA
93	Mavis Body Powder; Vivaudou		5%	4%	5,100 (.51%)	ND
94	Tangee; Luft-Tangee		4%	?	2,500 (.25%)	ND
95	ZBT Baby Powder	(B0048)	2%	3%	300 (.03%)	ND
96	Blanchard's Dusting Powder		8%	10%	5,600 (.56%)	-
97	Born Wild Dusting Powder; Del Labs		12%	15%	13,000 (1.3%)	ND
99	A&B Lander Lilacs and Roses Deodorant Body Talc		ND	ND	ND	ND
100	Miss Dior Dusting Powder		ND	ND	trace	-
101	Tai Winds Spray Talc; Avon	(DCC1272)	15%	ND	60,000 (6%)	ND
102	A&B Tosca Dusting Powder		10%	7%	8,900 (.89%)	ND
107	Coty Muguet des Bois Dusting Powder	(2DO)	ND	ND	ND	-
131	Johnson & Johnson Medicated Powder	(1171K)	trace	ND	ND	ND
133	Johnson's Baby Powder	(108T)	ND	ND	ND	ND
134	Johnson's Baby Powder	(109T)	ND	ND	ND	ND
135	Johnson & Johnson Medicated Powder	(0452K)	ND	ND	ND	ND
136	Johnson & Johnson Shower to Shower Body Powder	(C512Z)	ND	ND	ND	ND
137	Johnson & Johnson Shower to Shower Body Powder	(0709X1)	ND	ND	ND	ND
138	Johnson & Johnson Shower to Shower Body Powder	(0872K)	ND	ND	ND	ND
143	Pin-Zow Talque; Perfection Beauty Products, Inc.		5%	10%	1,800 (.18%)	-
144A	Overton's "High-Brown" Face Powder		5%	?	400 (.04%)	ND
145	Softee Face Powder		ND	2%	ND	ND
148	Lady Wayne Face Powder		2%	ND	trace	ND
149	Solitaire Cake Makeup		8%	?	3,000 (.3%)	ND

SAMPLE #	PRODUCT NAME AND MFG.	CODE	S. Z. Lewin's Results (X-Ray Diff.)		DCST's Results	
			Tremolite (%)	Chrysotile (%)	Tremolite (fiber/mg) Optical Microscopy	Chrysotile (%) - DTA
151	Early American Old Spice Talcum Powder		ND	ND	ND	-
152	Corsage Dusting Powder; Lander		ND	ND	ND	-
153	Ammens Powder, Medicated		ND	ND	ND	?
154	Bismoline Medicated Powder		2%	ND	200 (.02%)	-
155	Rite Aid Pure Baby Powder		ND	?	ND	ND
156	Warner Pure Baby Powder		2%	ND	200 (.02%)	ND
157A	Mavis Imported Talcum		6%	8%	9,000 (.9%)	ND
158	Avon Brocade Perfumed Talc		ND	ND	ND	ND
159	Avon Blue Lotus Perfumed Talc		ND	?	ND	ND
160	Avon Beauty Dust Refill - Charisma		ND	trace	ND	ND
163	Pinaud Clubman Talc		10%	10%	9,000 (.9%)	-
164	Grand Union Baby Powder	(101672)	ND	1%	trace	-
165	Cashmere-Bouquet	(4212DX)	ND	?	ND	ND
167	Tawny Tone Body Talc From Black Heritage; Beauty Mustus, Inc.		2%	ND	ND	ND
168	Colgate Tooth Powder		ND	ND	ND	ND
169	Dr. Lyon's Tooth Powder		ND	ND	ND	ND
170A	"C" Bouquet Talc; Winarick, Inc.	(2662)	ND	8%	6,300 (.63%)	ND
173A	Corsage Dusting Powder; Lander Co.		ND	?	-	?
175A	Lander Baby Powder		ND	?	-	ND
176A	Lander Lilac & Roses Body Talc		ND	?	-	ND

SAMPLE #	PRODUCT NAME AND MFG.	CODE	S. Z. Lewin's Results (X-Ray Diff.)		DCST's Results	
			Tremolite (%)	Chrysotile (%)	Tremolite (fiber/mg) Optical Microscopy	Chrysotile (%) -DTA
178A	Jean Nate Talc No. 60	(2264)	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 x 15  $\mu$ m.  
If it is assumed that microscopist sees 10% of fibers present, % values would be increased 1 order of magnitude.

TABLE I  
 SUMMARY OF RESULTS OF DCST'S ANALYSES FOR ASBESTOS MINERALS IN TALC  
 SAMPLES REPORTED BY LEWIN TO CONTAIN 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



Sample No.	S. Z. Lewin's Results (X-Ray Diff.)		DCST'S Results	
	Tremolite (%)	Chrysotile (%)	Tremolite (fiber/mg) Optical Microscopy	Chrysotile (%)-DTA
143	5	10	1,800 (.18%)	---
144A	5	?	400 (.04%)	ND
145	ND	2	ND	ND
148	2	ND	trace	ND
149	8	?	3,000 (0.3%)	ND
154	2	ND	200 (0.02%)	ND
156	2	ND	200 (0.02%)	ND
157A	6	8	9,000 (0.9%)	ND
160	ND	trace	ND	ND
163	10	10	9,000 (0.9%)	---
164	ND	1	trace	---
167	2	ND	ND	ND
170A	ND	8	6,300 (0.63%)	ND

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

<u>Sample No.</u>	<u>Tremolite</u>	Lewin Results (X-Ray Diff.)	<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.

TABLE III

SUMMARY OF DCST'S ANALYSES OF COSMETIC TALC PRODUCTS  
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	2	57(1)	47	11
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