CERTIFICATE OF MICROANALYSIS FOR ASBESTOS

SAMPLE DESCRIPTION:

1976 Series II Samnle #1 V-66 (USA)

METHOD OF ANALYSIS: Qualitative physical and chemical characteristics of fibrous material with the scanning electron microscope and energy dispersive x-ray analyzer. Analysis of 50 fields each at 150X; 1,500X; and 15,000X. Approximately 2.5 x 10^6 particles total examined at 150X; 2.5 x 10^4 at 1500X; and 2.5 x 10^2 at 15,000X.

RESULTS: No asbestos microfibers observed in this sample at any magnification.

Analyst

1/3/77
Date

James H. McAlear, Ph.D.
President

EMV ASSOCIATES INC
MICROANALYSIS LABORATORY
15825 Shady Grove Road
Rockville, Maryland 20850

CERTIFICATE OF MICROANALYSIS FOR ASBESTOS

DEFENDANT'S EXHIBIT D-7721

SAMPLE DESCRIPTION:

1976 Series II Sample #2 NA300M (Korea)

METHOD OF ANALYSIS: Qualitative physical and chemical characteristics of fibrous material with the scanning electron microscope and energy dispersive x-ray analyzer. Analysis of 50 fields each at 150X; 1,500X; and 15,000X. Approximately 2.5 x 10^6 particles total examined at 150X; 2.5 x 10^4 at 1500X; and 2.5 x 10^2 at 15,000X.

RESULTS: No asbestos microfibers observed in this sample at any magnification.

Analyst

1/3/77
Date

James H. McAlear, Ph.D.
President

EMV ASSOCIATES INC
MICROANALYSIS LABORATORY
15825 Shady Grove Road
Rockville, Maryland 20850

CERTIFICATE OF MICROANALYSIS FOR ASBESTOS

SAMPLE DESCRIPTION:

1976 Series II Sample #7 SUC00000 (Italian)

METHOD OF ANALYSIS: Qualitative physical and chemical characteristics of fibrous material with the scanning electron microscope and energy dispersive x-ray analyzer. Analysis of 50 fields each at 150X; 1,500X; and 15,000X. Approximately 2.5 x 10^6 particles total examined at 150X; 2.5 x 10^4 at 1500X; and 2.5 x 10^2 at 15,000X.

RESULTS: No asbestos microfibers observed in this sample at any magnification.

Analyst

1/3/77
Date

James H. McAlear, Ph.D.
President

EMV ASSOCIATES INC
MICROANALYSIS LABORATORY
15825 Shady Grove Road
Rockville, Maryland 20850

CERTIFICATE OF MICROANALYSIS FOR ASBESTOS

SAMPLE DESCRIPTION:

1976 Series II Sample 8 - Pakistan Kashmir Talc

METHOD OF ANALYSIS: Qualitative physical and chemical characteristics of fibrous material with the scanning electron microscope and energy dispersive x-ray analyzer. Analysis of 50 fields each at 150X; 1500X; and 15,000X. Approximately 2.5 x 10^6 particles total examined at 150X; 2.5 x 10^4 at 1500X; and 2.5 x 10^2 at 15,000X.

RESULTS: No Asbestos microfibers observed in this sample at any magnification.

Analyst

1/12/77
Date

EMV ASSOCIATES INC
MICROANALYSIS LABORATORY
15825 Shady Grove Road
Rockville, Maryland 20850

SYNOPSIS OF FINDINGS

Purity data on second series of 1976 talcs in use by all Johnson & Johnson Affiliates

1. All talcs presently in use corporately were found to be free from asbestiform minerals.

2. Australian Flinders talc now shows a measurable improvement in theoretical talc mineral content as compared to assays earlier last year.

3. In addition to our own results, we have included certification of freedom from asbestos fibers for each talc as determined by Scanning Electron Microscopy by one of the leading specialist laboratories in the United States.

DETERMINATION OF ACID SOLUBILITY OF
JOHNSON & JOHNSON AFFILIATE TALCS
1976 SERIES II

Johnson & Johnson U.S.A. Specification Test used is TM1228

Affiliate Talc & Country	Duplicate Tests For Acid Solubility %
1. J&J Canada (V-66)	1.88 - 1.84
2. J&J Thailand (Korean NA-200)	2.57 - 2.70
3. J&J India (Besta)	2.54 - 2.48
4. J&J Philippines (Korean NA-325)	2.57 - 2.64
5. J&J Australia (Flinders)	2.54 - 2.64
6. J&J Mexico (Italian-Mex. Grind)	2.77 - 2.75
7. J&J England (Italian)	3.17 - 3.16
8. J&J Pakistan (Kashmiri)	1.10 - --
9. J&J Brazil (Magnesita)	0.88 - 0.68
10. J&J Brazil (Mipal)	0.45 - 0.36

U.S.A. Domestic - Specs	2.00% max.
U.K. - Specs - (Italian Talc)	6.00% max.

SERIES II - 1976 TALCS - TRACE METALS - BY ATOMIC ABSORPTION

	J&J	Mine Source	Fe%	Ni	Mn	CR	Co	Cu	As	Heavy Metals as Pb
1.	Canada	Vermont	2.19	2200	71	154	65	6	< 2	< 10
2.	Thailand	Korea	0.86	16	51	6	16	3	"	"
3.	India	Jaipur	0.57	31	59	5	11	0	"	"
4.	Philippines	Korea	0.82	18	54	4	14	4.5	"	"
5.	Australia	Australia	0.47	23	21	18	8	4.5	"	"
6.	Mexico	Italy	0.60	20	36	9	7	8.8	"	"
7.	England	Italy	0.88	17	61	8	8	7.8	"	"
8.	Pakistan	Kashmiri-Pak.	0.36	15.5	7	11	5.2	3	"	"
9.	Brazil	Magnesita	0.33	25	39	5	11	3	"	"
10.	Brazil	Mipal	0.19	13	26	4	8	7	"	"

ALL DATA PARTS PER MILLION EXCEPT Fe% by WT.

MICROSCOPIC EXAMINATION

Determination of crystal structure and freedom from: quartz, amphibole minerals (e.g., tremolite), and fibrous serpentine (chrysotile).

Country	Structure	Amphibole	Fibrous Serpentine	Quartz
1. Canada (V-66)	Platy	none	none	trace
2. Thailand (Korea NA200)	Platy	none	none	trace
3. India (Besta)	Platy	none	none	trace
4. Philippines (Korea-NA325)	Platy	none	none	none
5. Australia (Flinders)	Platy-50% Granular -50%	none	none	trace
6. Mexico (Italian-Mex.Grind)	Platy	none	none	0.1 to 1.0%
7. England (Italian)	Platy	none	none	0.1 to 1.0%
8. Pakistan (B-Kashmiri)	Platy (minor granular)	none	none	trace
9. Brazil (Magnesita)	Platy	none	none	trace
10. Brazil (Mipal)	Platy	none	none	trace

QUALITATIVE ANALYSIS OF MINERAL CONSTITUENTS OF J & J 1976 TALCS (SECOND SERIES) BY X-RAY DIFFRACTOMETRY

	J&J Affiliate Submitting Talc Source	Qualitative Analysis 10% Major	2-10% Minor	0-2% Trace Components
1.	Canada	talc		chlorite, dolomite & magnesite & plagioclase
2.	Thailand	talc	dolomite	calcite, muscovite
3.	India	talc		siderite, chlorite, magnesite & rutile
4.	Philippines	talc		dolomite
5.	Australia	talc	chlorite	calcite
6.	Mexico	talc		dolomite, chlorite, quartz rutile & magnesite
7.	England	talc	chlorite	dolomite & calcite
8.	Pakistan	talc		dolomite
9.	Brazil (Mipal)	talc		magnesite, plagioclase, dolomite, rutile & muscovite
10.	Brazil (Magnesita)	talc	chlorite	magnesite, plagioclase & dolomite

WORLD TALC SURVEY - 1976 - SERIES II

OXIDES ANALYSIS

% By Wt.

Country	SiO_2	MgO	AL_2O_3	Fe_2O_3	CaO	Loss on Ignition	H_2O Moisture at 105°c	CO_2	Theoretical Calculated % Talc Content
1. J&J Canada (V-66)	61.28	29.71	0.46	3.44	0.13	5.19	0.01	0.74	97.6
2. J&J Thailand (Korean NA-200)	61.91	30.89	0.31	1.22	0.65	5.08	0.02	0.92	97.7
3. J&J India (Besta)	61.83	31.26	0.58	0.50	0.87	4.97	0.01	0.36	97.6
4. J&J Philippines (Korean NA-325)	61.42	30.59	0.41	1.23	0.71	5.68	0.03	0.97	96.9
5. J&J Australia (Flinders)	56.23	31.48	4.54	0.72	0.47	6.57	0.02	0.41	88.7
6. J&J Mexico (Italian-Mex.Grind)	61.20	30.89	0.73	0.86	0.55	5.66	0.04	0.93	96.6
7. J&J England (Italian)	58.59	30.74	2.80	1.35	0.56	6.00	0.01	0.70	92.24
8. J&J Pakistan (Kashmiri)	62.25	31.66	0.19	0.35	0.28	5.28	--	--	98.2
9. J&J Brazil (Magnesita)	62.32	31.34	0.90	0.52	0.01	4.94	0.01	0.25	98.3
10. J&J Brazil (Mipal)	63.44	31.56	0.18	0.07	0.01	4.80	0.01	0.10	100.0