

FILE NAME: RT Vanderbilt (RTV)

DATE: 1974 Oct 9

DOC#: RTV250

DOCUMENT DESCRIPTION: Inspection Report from J-M Archive - Analysis of 6 Samples of Various Vanderbilt Talc Products

Summary

*LM file*

Six (6) samples of various Vanderbilt talc products were analyzed for Chrysotile content by McCrone Associates and by E. M. Ventions, Inc. No chrysotile was detected by either laboratory. The six (6) samples were supplied by the Johns-Manville Company as portions of the samples they had found to contain up to 35% chrysotile fiber, as reported to Vanderbilt personnel and to officials of the Occupational Safety and Health Administration in Washington.

Analytical Data

In March of 1975 representatives of Johns-Manville Corporation, Denver, Colorado (R. S. Lamar) called requesting a meeting between themselves and R. T. Vanderbilt personnel regarding the labeling of tremolitic talc. The meeting was eventually arranged for April 16, 1975 at RTV Corporate Headquarters in Norwalk, Connecticut.

The meeting was attended by R. S. Lamar, R. P. Carter (representing J. M.), H. B. Vanderbilt, T. T. Noland, A. M. Harvey, C. S. Thompson, and P. B. Gibney, Jr.

Lamar and Carter explained that they had called this meeting to present their story that our talcs (NYTALS, etc.) contained chrysotile and other forms of asbestos. They offered technical data, copies of which were left with us, and offered to send us samples of the talc they studied. During the discussion Lamar stated that one of the Vanderbilt products contained 35% chrysotile. The data they presented included "fiber" counts performed on four (4) so-called Vanderbilt products indicating that chrysotile constituted up to one-third of the "fibers" counted. (see attached Johns-Manville document) Fibers were defined by the inadequate and obsolete criteria of 3:1 aspect ratio.

Their reasons for the visit were given as purely informative, as friends, in case we were unaware of the mineral content of our talc. They admitted they had gone to OSHA offices in Washington with the same story, complaining that they were losing business to Vanderbilt talcs which they considered to contain more asbestos than theirs. They have labelled their Western talcs with the OSHA Asbestos Label, and they had hoped to convince us to do likewise. Mention was made of the law suits now existing against Johns-Manville resulting from non-labelled asbestos 20 years ago.

We ended the meeting with their promise to send us portions of the retained samples of Vanderbilt talcs they had analyzed and reported on.

The above statement concerning chrysotile came as a complete surprise to us since our past studies of the mineral content of all our talc ores and products had revealed no chrysotile. The minerals present in the talc products discussed had been determined to be as follows:

- major non-asbestiform tremolite and anthophyllite
- moderate serpentine (antigorite-lizardite)
- moderate talc
- trace quartz

Other grades of talc produced by Vanderbilt in a separate mine and mill facility in the Gouverneur, New York area contain the following minerals:

- major fibrous talc
- minor serpentine (antigorite-lizardite)
- minor asbestiform anthophyllite
- trace quartz

John-Manville

(2)

Internal Communication

R. S. Lamar

October 9, 1974

R. S. Lamar - RID

Date: October 9, 1974

samples studied are as follows:

V. E. Wolfson - RID

| SAMPLES                      | TREMOLITE    | CHRYSOTILE | ANTHOPHYLLITE |
|------------------------------|--------------|------------|---------------|
| Distribution at<br>Nytal 200 | 604,000/mg   | 300,000/mg | 151,000/mg    |
| Nytal 400                    | 1,931,000/mg | 86,000/mg  | 129,000/mg    |
| Asbestine 3X                 | 876,000/mg   | 561,000/mg | 23,000/mg     |
| Asbestine 325                | 992,000/mg   | 503,000/mg | 31,000/mg     |

The predominant fiber in each sample is Tremolite which can be somewhat blocky, with clipped ends, is very harsh, but most are narrow and rigid fibers. The Chrysotile ranges from silky (very small percentage), bundles of few fibrils, and bundles containing numerous fibrils. In general, the Chrysotile is considered medium-harsh to harsh. The Anthophyllite is characterized by having very narrow diameters, being extremely rigid, being almost spear-like since individual fibers can show one end as acicular (needle-like) and others show a double termination of acicularity.

6. By transmission electron microscopy (TEM), six plates were taken of each sample. One print of each sample to show at least a few Chrysotile fibers are attached and the magnification is 11,000X. At this magnification 1.1 cm equals one micron.

The TEM plates on file are as follows:

- |                  |                         |
|------------------|-------------------------|
| a. Nytal 200     | TEM Plate Nos. 2301 A-F |
| b. Nytal 400     | TEM Plate Nos. 2302 A-F |
| c. Asbestine 3X  | TEM Plate Nos. 2303 A-F |
| d. Asbestine 325 | TEM Plate Nos. 2304 A-F |

All plates were taken at 4400X, and after enlargement for prints, the magnification would be 11,000X.

All TEM plates were taken on our RCA EMU-3B electron microscope. We had planned to use a better model, Philips 200, at The Denver Research Institute for greater

R. S. Lamar

October 9, 1974

samples studied are as follows:

clarity, better resolution, obtain plates at higher magnification and do selected area electron diffraction to prove the identity of the asbestos minerals (which cannot be done on our RCA model), but the instrument at DRI was not available for our use at the time; and in all probability even if available, the work could not have been finished by October 11, 1974, since the optical work took a great deal of time.

7. If better TEM micrographs are needed with selected area electron diffraction patterns for your FDA presentation, and if you somehow can get additional time before the presentation, I will make arrangements for our use of the Philips 200 electron microscope at DRI.

V. E. Wolkodoff

V. E. Wolkodoff  
Applied Research Section

jc

Distribution:

|                          |      |                  |
|--------------------------|------|------------------|
| R. P. Carter             | - 4N | F. L. Pundsack   |
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| Paul Kotin, M.D.         | - 4N | W. C. Streib     |
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