



Inter Office

General Products Division
Saline Plant

November 18, 1975

To: F. Serbus
cc: C. Calkins
R. Hannum
From: W. Mayes
Subject: Talc Evaluation

Please have the enclosed sample of talc approved by Industrial Hygiene for use as an "asbestos" free mineral. A letter of certification from the vendor and a Ford Motor Company Gate #4 report is attached as requested by Industrial Hygiene in their letter of October 28, 1975.

The following sample is being submitted:

Whittaker, Clark and Daniels, Incorporated
Vermont Talc - Grade: Polytal #4641

Vendor certification letters are also enclosed for two previously submitted talc samples, on August 15, 1975, namely:

~ Pfizer BX #128 #3 sample
~ Vanderbilt #200 #6 sample

Please forward this request with attachments as soon as possible. An approval of these materials is required by December 15, 1975.

W. A. Mayes

JJV/sk

MFG. ENGRG - Caus. & Gues
835-2238

Attachments

5007 0893

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To: *AL*

SUBJECT: *NEW TALC SAMPLES*

The below listed talcs are submitted for the following tests:

- 1) U.S. STANDARD SCREEN ANALYSIS (PARTICLE SIZE)
- 2) ~~WHAT ARE THE TALCS TO BE "ASBESTOS FREE" PER OSHA REGULATION DATED 11/12/72 (37 CFR 22.42)~~ *NO*
- 3) CHEMICAL ANALYSIS - %
- 4) MOISTURE CONTENT - %

Signed: *[Signature]* AI Date: *1/20/73*

Sender - Do not write below

TALC SUPPLIER	GRADE	SOURCE
1) <i>PFIZER</i>	<i>MP 98-25</i>	<i>1 MONTANA</i>
	<i>BX-127</i>	<i>2 "</i>
	<i>BX-128</i>	<i>3 ✓ "</i>
<i>WHITTAKER CLARK &</i>	<i># 4641</i>	<i>4 ✓ VERMONT</i>
<i>WHEELS</i>	<i># 4660</i>	<i>5 NEW JERSEY</i>

Signed: AI Date:

Form 71 5967

3. RECIPIENT'S COPY

Two Way Memo SHEET # 2 of # 2 Reference number 509334

To: AI

3) <i>PIONEER TALC</i>	<i># 660</i> <i># 620</i>	<i>6 TEXAS</i>
	<i># 630</i>	<i>7</i>
4) <i>R.T. VANDERBILT</i>	<i># 200</i>	<i>8 ✓ NEW YORK</i>
	<i># 300</i>	<i>9 "</i>

Signed: AI Date:

8007 0894

PQ

GENERAL SERVICES
LABORATORY INVESTIGATION REPORT

NUMBER 504475-75

-2-

TEST DATA:

Continued

Sample 5 - 5 phases, 1st phase talc, 2nd phase dolomite, 3rd phase clino chrysotile, 4th phase silicon oxide, 5th phase tremolite.

Sample 6 - 4 phases, 1st phase talc, 2nd phase dolomite, 3rd phase silicon oxide, 4th phase clino chrysotile.

Sample 7 - 4 phases, 1st phase talc, 2nd phase clino chrysotile, 3rd phase silicon oxide, 4th phase magnesium carbonate.

R.T. Van der Bilt 200

Sample 8 and Sample 9 similar, 6 phases, 1st phase clino chrysotile, 2nd phase magnesium carbonate, 3rd phase silicon oxide, 4th phase talc, 5th phase residual dolomite, 6th phase possible tremolite.

Sieve Analysis, %

* Sample 1
On #200 Sieve - 3.1
Thru #200 Sieve - 96.9
On #325 Sieve - 16.1
Thru #325 Sieve - 83.9

Sample 2
On #200 Sieve - 0.0
Thru #200 Sieve - 100.0
On #325 Sieve - 1.0
Thru #325 Sieve - 99.0

* Sample 3
On #200 Sieve - 3.4
Thru #200 Sieve - 96.6
On #325 Sieve - 19.0
Thru #325 Sieve - 81.0

* Sample 4
On #200 Sieve - 0.2
Thru #200 Sieve - 99.8
On #325 Sieve - 5.1
Thru #325 Sieve - 94.9

Sample 5
On #200 Sieve - 0.0
Thru #200 Sieve - 100.0
On #325 Sieve - 0.9
Thru #325 Sieve - 99.1

Sample 6
On #200 Sieve - 0.0
Thru #200 Sieve - 100.0
On #325 Sieve - 2.0
Thru #325 Sieve - 98.0

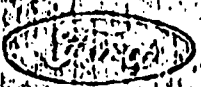
Sample 7
On #200 Sieve - 0.0
Thru #200 Sieve - 100.0
On #325 Sieve - 0.8
Thru #325 Sieve - 99.2

Sample 8
On #200 Sieve - 0.1
Thru #200 Sieve - 99.9
On #325 Sieve - 0.4
Thru #325 Sieve - 99.6

Sample 9
On #200 Sieve - 0.1
Thru #200 Sieve - 99.9
On #325 Sieve - 0.5
Thru #325 Sieve - 99.5

by G. Duppuy
G. Duppuy, Supervisor
Metallurgical Department

8007 0805



CENTRAL LABORATORY SERVICES
GENERAL SERVICES
LABORATORY INVESTIGATION REPORT

NUMBER 504475

September 26, 1975

TO: Mr. D.C. Himebaugh

SUBJECT: Talc

OBJECT: Perform material composition and sieve analysis to Manufacturing Standard M-99B93A(V).

CONCLUSION: The nine talc samples do not meet the required material composition of M99B93A(V) specification.
 The sieve analysis does not meet section 3.2 as indicated by *.

TEST DATA: Chemical analysis, %

	#1	#2	#3	#4	#5	#6	#7	#8	#9
MgO	60.3	56.5	53.6	44.8	54.8	56.0	49.9	52.6	51.9
CaO	33.5	30.5	29.4	35.3	31.4	29.6	33.0	31.2	25.8
SiO ₂	0.22	0.25	0.28	0.14	7.3	3.5	3.9	8.4	8.3
Al ₂ O ₃	1.43	1.38	1.57	0.57	0.77	0.28	0.61	0.36	0.26
CO ₂	0.24	0.95	1.10	16.56	9.71	6.08	3.22	1.14	1.36
Moisture	0.21	0.10	0.10	0.10	0.20	0.20	0.38	0.65	0.58
Fe ₂ O ₃	1.18	1.64	2.12	5.98	0.41	0.19	0.26	0.32	1.49
Loss on Ignition (1800F-1 hr)	5.98	5.52	6.25	19.56	13.31	10.62	9.12	6.63	6.86

X-Ray Diffraction Pattern

X-ray diffraction pattern indicates the following phases to appear present in samples 1 through 9.

- Sample 1 - 3 phases, 1st phase talc, 2nd phase silicon oxide Alpha Quartz 3rd phase clino chrysotile.
- Sample 2 - 4 phases, 1st phase talc, 2nd phase silicon oxide Alpha Quartz, 3rd phase dolomite, 4th phase clino chrysotile.
- Sample 3 - 4 phases, 1st phase silicon oxide, 2nd phase talc, 3rd phase dolomite, 4th phase residual clino chrysotile.
- Sample 4 - 3 phases, 1st phase talc, 2nd phase magnesium carbonate, 3rd phase residual clino chrysotile.

(Prizer 8x-58)
W.H. Clark
11/6/75

8007 0896

R. T. VANDERBILT COMPANY, INC.
30 WINFIELD STREET
NORWALK, CONNECTICUT 06855

CABLE ADDRESS
"BILTVAN" NORWALK, CONNECTICUT
TWX 710-418-2940
(203) 851-1400

May 27, 1975

Mr. Joseph Videki
Ford Motor Co.
General Parts Div.
7700 West Michigan Ave.
Saline, MI 48176

Dear Mr. Videki:

As requested by Joseph McCarthy, we are pleased to be able to certify that the following grades of talc do not contain asbestos:

NYTAL 200

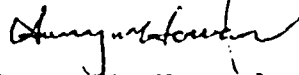
NYTAL 300

NYTAL 400

This certification is in accordance with Assistant Secretary Stender's letter of October 9, 1974, copy enclosed. We are able to certify all of our other grades with the exception of our Fiber grades should this be pertinent to your requirements.

May we look forward to receiving your orders soon?

Sincerely,



Harry W. Howard, Sales Mgr.
Paint/Paper Department

HWH:ld

enc.

cc: J. F. McCarthy

8007 0897

The recommendations for use of our materials are based upon tests believed to be reliable. However we do not guarantee the results to be obtained.

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WHITTAKER, CLARK & DANIELS, INC.

(201) 561-6100

1000 COOLIDGE STREET • SOUTH PLAINFIELD, N. J. 07080
July 16, 1975

Mr. Donald Himebaugh
Ford Motor Company
Quality Control Laboratory
Saline, Michigan 48176

Dear Mr. Himebaugh:

Mr. Clennon of Harry Holland & Son, Inc. has requested that we pay particular attention to the testing for asbestos in Nos. 4615, ~~4641~~ and 4660 POLYTALS*. We wish to confirm that we have checked these products repeatedly for possible asbestos fiber contamination.

Our company has set up a periodic test for these talcs by means of X-ray Diffraction, Continuous Scanning Method and reports on these materials continually state "no presence of asbestos form minerals". These tests are run on material coming from the mine location and do not represent individual shipments or lots.

In view of the above, we are pleased to report that these products meet the requirements of OSHA Asbestos Standard Bulletin 1910.93a, No. 20, therefore, are certified to be "asbestos free".

Very truly yours,

WHITTAKER, CLARK & DANIELS, INC.

Ray R. Krammes
Manager - Technical Services

RRK/ep
*POLYTAL, Trademark Reg. U. S. Pat. Off.

3007 0392

IMPORTERS • MANUFACTURERS • EXPORTERS
MINERALS, COLORS, PIGMENTS



MINERALS, PIGMENTS & METALS DIVISION

PFIZER INC., 6460 WEST CORTLAND STREET, CHICAGO, ILLINOIS 60635

DETROIT PHONE (313) 961-6780
CHICAGO PHONE (312) 899-6161

June 23, 1975

Mr. Joe Videki
Ford Motor Company
Plastics Division
7700 East Michigan Ave.
Saline, Michigan 48176

Dear Joe:

As you requested, I have checked on certifications on asbestos in talc and have found that OSHA does not certify raw materials and will not certify a talc deposit as being asbestos free. OSHA sets up the regulations and it is up to the raw material manufacturer to abide by them.

In the Federal Register of June 7, 1972, the Department of Labor published its standard for exposure to asbestos dust under the Occupational Safety and Health Act. This standard, effective July 7th of the same year, limits the eight hour time-weighted airborne concentrations of asbestos fibers, to which employees are exposed, to 5 fibers per cubic centimeter of air. In addition, a ceiling concentration of 10 fibers is not to be exceeded. This regulation defines tremolite, actinolite and other acicular minerals commonly associated with some industrial talcs as asbestos.

Pfizer is pleased to certify that all talc products produced at our Barretts, Montana plant (Pfizer product code prefix MP) are in compliance with OSHA regulation 1910.93a and OSHA Field Directive #74-92. This certification is made on the basis that these products contain no asbestos or asbestosiform materials within detectable limits when examined by X-ray diffraction and electron microscopy. BX-127 and BX-128 Montana talcs are exceptionally low in tremolite and free of asbestos fibers, to the limit of measurability by X-ray diffraction and transmission electron microscopy.

To investigate this further, the people in your Industrial Hygiene Department might wish to visit with the two Pfizer research men, Harold Stanley and Robert Norwood. These men have found that certain mixtures shown to be free of asbestos-like minerals by X-ray diffraction and the light microscope nevertheless contained 5% or more of asbestos impurities when viewed in a transmission electron microscope. I have included a copy of their paper "The Detection and Identification of Asbestos and Asbestosiform Minerals in Talc." If a meeting with our people would be of advantage to you, we would be more than happy to try and arrange it.

8007 0699

PQ

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June 2 1975

I believe the freight rates quoted to you on May 9, 1975 are still in effect from Barretts, Montana to Saline, Michigan in bags or bulk:

Shipped FOB c
per net ton:

llows

BX-127
BX-128

The typical chemical and physical properties of these talcs is as follows:

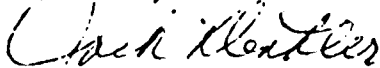
SiO ₂	61.4%
MgO	29.9%
CaO	0.6%
Fe ₂ O ₃	1.0%
Al ₂ O ₃	2.2%

Specific Gravity	2.70
Bulking	.0445 gal/lb.
% on 325 mesh (BX-127)	.5 - 1.5
% on 200 mesh (BX-128)	1.5 - 2.5
Dry Brightness(BX-127)	85.5
Dry Brightness(BX-128)	85
Oil Absorption(BX-127)	28
Oil Absorption(BX-128)	23

Joe, I trust this will prove to your Industrial Hygiene people that our Montana talcs will meet the OSHA requirements on asbestos, but if they have any questions, we will be more than pleased to answer any additional questions or arrange a meeting to discuss this problem in greater detail.

Cordially,

MINERALS, PIGMENTS & METALS DIVISION



J. M. Dentler,
Sales Representative

JMD:MZ

3007 0900

PQ

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Reply to:
3001 Miller Road
Dearborn, Michigan 48121

Ford Motor Company

The American Road
Dearborn, Michigan 48121

Mr. C. Smith
Environmental Health Laboratories, Inc.
32740 Northwestern Highway
Farmington, Michigan 48024

March 5, 1976

Dear Mr. Smith:

Enclosed is one bulk talc sample submitted for determination of asbestos. The material is identified as: Whittaker Clark and Daniels "Polytal No. 4641."

The purpose of this determination is to confirm the supplier's certification that the above product does not contain asbestos or asbestiform materials with respect to current OSHA requirements by X-ray diffraction and electron microscopy methods.

Please forward results and separate billing to my attention. The billing should indicate the Ford Saline Instrument and Plastics Plant.

Very truly yours,

Donald A. Greschaw
Senior Industrial Hygienist
Industrial Hygiene Section
Employee Health Services Department

Enclosure

8007 0901

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ENVIRONMENTAL **EHL** **LABORATORIES, INC.**
 32740 Northwestern Highway, Farmington, Michigan 48024 (313) 626 2426

EHL Report No. 10927

Date 3-9-76

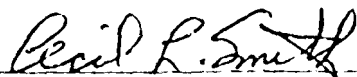
TO: FORD MOTOR COMPANY
 Attn: Mr. D. A. Greschaw
 3001 Miller Road
 Dearborn, MI 48121

The following results were obtained on samples received on 3-8-76,
 and identified as shown.

TYPE OF SAMPLE: Blood, Urine, Air, Other Bulk

ANALYSIS REQUESTED: Lead, Mercury, Other % Asbestos

EHL LAB NO	YOUR IDENTIFICATION NUMBER	NAME OR SAMPLE DESCRIPTION	RESULTS OF ANALYSIS
21303	#4641	Whittaker Clark & Daniels Polytal *asbestos species including amosite, anthophyllite, crocidolite, chrysotile	<u>% Asbestos</u> non-detectable* <i>4.5-</i>


 Environmental Health Laboratories, Inc.
 Cecil L. Smith, Manager

8007 0902

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