

FILE NAME: Talc (TALC)

DATE: 1978 -1980

DOC#: TALC485

DOCUMENT DESCRIPTION: Memos by The Navy & J-M

XRTV  
- USG/Navy  
- *Robert J. ...*  
(file)

Alc 5137.1

Naval Speciation

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(Rev. 7-77)  
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CLASSIFICATION

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185-Ser 466 /5100

DATE 20 1978

TO: Commander  
Naval Sea Systems Command (SEA 0730)  
Washington, D. C. 20362

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[ ] AIR [ ] CONTINUING  
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INSTRUCTIONS

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Subj: Review of Tremolite Talc containing asbestos fibers on Mare Island Naval Shipyard

Ref: (a) FOREGOING between R. D. Patterson, SEA 0730, and A. E. Leveque, Code 185, NAVSHIPWARE, of 7 June 1978  
(b) FOREGOING between R. D. Patterson, SEA 0730, and A. E. Leveque, Code 185, NAVSHIPWARE, of 16 June 1978

Encl: (1) Report of Review of Talc, containing asbestiform, used on Mare Island Naval Shipyard  
(2) Field Information Memo #74-92, U. S. Department of Labor, OSEA

1. During a telephone conversation (reference a), Mare Island Safety Office reported that through microscopic evaluation, Talc used in production facilitating processes appeared to contain asbestos fibers. In a telephone conversation (reference b), the Safety Director, Mare Island Naval Shipyard, reported the findings and actions taken to NAVSEA. Enclosure (1) is results of the survey and enclosure (2) is background information pertaining to Tremolite and asbestiform requirements.

2. Actions taken.

a. A hold was placed on all Talc used in production facilitating processes to determine possible asbestiform contamination.

All Naval Shipyards  
EXED (Code 55)  
NAVSEA 047

Commander  
Mare Island Naval Shipyard  
Vallejo, California 94592

Ny 6/5/80  
100  
185  
136  
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CRM-HT-TALC-0002

SUT0020

1543

*Reduction of Asbestos  
qualified replacement products*

141

Code 185  
Ser 116-78  
26 June 1978

MEMORANDUM

From: Code 185  
To: Code 500

Subj: Tremolite Talc Containing Asbestos Fibers

Encl: (1) Naval Spdltr from Commander, Mare Island Naval Shipyard  
to Commander, Naval Sea Systems Command of 20 Jun 1978

1. Enclosure (1) identified subject in use at Mare Island Naval Shipyard and procedures taken to reclaim talc containing asbestos fibers for disposal while substituting non-asbestos talc.
2. Request search of procurement documents and/or inventory lists to locate subject in supply points (Shop Stores) at Philadelphia Naval Shipyard.
3. Notify Code 185 of stocking locations NLT 20 July 1978.

*Joseph W. Kennedy*  
JOSEPH W. KENNEDY

Copy to: (w/encl)  
Code 134  
300

*Date check  
on file  
NDT -*

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take suspension*

LABORATORY TEST REQUEST  
12ND INNS 4730/19 (REV. 3-76)

JUN 15 1978  
Submittal 1178  
Copies To Laboratory

LABORATORY REPORT NO.  
289278

|                                                                   |                             |                           |
|-------------------------------------------------------------------|-----------------------------|---------------------------|
| TO: <input checked="" type="checkbox"/> CHEMISTRY LAB, CODE 134.1 | FROM: 570.11                | DATE: 6-15-78             |
| <input type="checkbox"/> METALLURGICAL LAB, CODE 134.2            | SHIP/RECEIPT NO.: 67HS      | COPY TO: 570.11           |
| <input type="checkbox"/> MATERIAL TEST LAB, CODE 134.3            | TEST CODE NO.: 2590/25904   | CONTRACT NO.: 1E481608847 |
| <input type="checkbox"/> RADIOCHEMISTRY LAB, CODE 134.4           | ORIG. REQUEST NO.: 81650838 | DOCUMENT NO.: 91608847    |
| OTHER:                                                            | SPECIFICATION/PLAN:         | TYPE/ALLOY: GRADE: CLASS: |

DESCRIPTION OF MATERIAL: TALC, TECHNICAL GRADE, POWDER FORM  
"MONTANA GRADE PLATE"  
PRIMP 25-38 IN 50 LBS SACKS

| TESTING REQUIRED                                        |       | METALLURGICAL & PHYSICAL          |       |
|---------------------------------------------------------|-------|-----------------------------------|-------|
| CHEMICAL                                                |       | TENSION                           |       |
| <input checked="" type="checkbox"/> CONFORMANCE TO      | OTHER | <input type="checkbox"/> MACRO    | OTHER |
| <input checked="" type="checkbox"/> IDENTIFICATION AS   |       | <input type="checkbox"/> SEAMLESS |       |
| TESTING INSTRUCTIONS: (WIRE, T-SHEET, DLM, PELS, OTHER) |       |                                   |       |

TEST FOR ASBESTOS

|                                     |                                   |                                                                           |                                           |
|-------------------------------------|-----------------------------------|---------------------------------------------------------------------------|-------------------------------------------|
| NO. OF TEST SAMPLES: 2              | NO. OF PAGES REPRESENTED: 58 B56- | DISPOSITION OF SAMPLES:<br><input checked="" type="checkbox"/> EXPENDABLE | <input type="checkbox"/> RETURN TO SENDER |
| SUPERVISOR'S SIGNATURE: [Signature] |                                   | CODE: 570.11                                                              | PHONE: 4628                               |
| LABORATORY USE ONLY                 |                                   |                                                                           |                                           |

No asbestos detected in OA 7 LT 749 or 707 LT 749.  
AUG 23 1978

STOCK NO 6810 LL T99 9893

UI LB

Call Mr. Barbone, shop store 07  
at 4760 if any  
further question, Bldg 535  
Mr. H. [Signature] Code 502

|                      |                               |                        |
|----------------------|-------------------------------|------------------------|
| ANALYST/INVESTIGATOR | AUTHENTICATED BY: [Signature] | H. LEW<br>Section Head |
|----------------------|-------------------------------|------------------------|

CRMC-IIT-TALC-000275

C 18404

05D2/6101C/JJT  
9631  
Ser 35

30 MAY 1979

From: Commander, Naval Sea Systems Command  
To: Commander, Mare Island Naval Shipyard

Subj: Asbestos Content of Magnesium Silicate Raw Materials Used in Manufacture of MIL-P-24441 Epoxy Coatings

Ref: (a) NAVSEC Project Order N6519779P090020

1. It is requested that Mare Island Naval Shipyard (NAVSHIPYD Mare) evaluate magnesium silicate from:

B. T. Vanderbilt Co.

(Nytal 300)

Pfizer Co., Minerals & Pigments

(CP 20-30)

Cyprus Mistic

(139)

Desert Minerals Talc Co.

(Hy-Fine 80)

to determine asbestos fiber content.

2. Although tremolite is the major mineral fiber in asbestos, other mineral fibers are chrysotile, amosite, crocidolite, anthophyllite, and actinolite. These fibers are to be identified also and, if present, reported along with tremolite.

3. The magnesium silicate pigments of paragraph one (1) shall also be evaluated physically and chemically. In particular, oil absorption should be determined and compared to the material used to make reformulated MIL-P-24441 materials, i.e. Pfizer Cp 20-30 magnesium silicate.

The effort is within the scope of funding of reference (a).

A. T. ANDERSON  
By direction

Blind copy to:  
NAVSEA 05D23/6101E  
534/6159C  
921TH3

Prepared by: John J. Tock/05D21/6101C/20214  
Typed by: L. Sandojo Hager/24 May 1979

B 109398

# Internal Correspondence

Date June 21, 1979

N. Amarino

D. Kotin, M.D.

It is pleased that the Navy Medical Department has  
initiated the use of Poudrage in the treatment of  
pleural disease in members of the Naval forces. There  
is a statement essentially inconsistent between the  
statement of Mr. McKinney and the statement of the  
fact that studies of virtually all talcs have  
showed fibrous tremolite as a varying percentage of  
the talcs studied. This fibrous component, when of  
certain dimensions and dose, has been shown to  
cause mesothelioma in animal studies. Of immediate  
interest is the recent publication by Chern, Karnock  
and others entitled "Malignant Mesothelioma Arising after  
Inhalation of Asbestos and Fiber Glass to the  
Pericardium". This is a case of mesothelioma, apparently  
arising in the pericardium, reported in a patient who,  
prior to surgery, had been treated for angina pectoris  
by the injection of the pericardial cavity with a mixture of  
doses.

It is of course is not the pathogenic pro-  
cess of fibers about which there is a voluminous body  
of knowledge, but rather the lack of universal aware-  
ness of the potential of these fibers to produce disease  
in the pericardium and the two decades thereafter.



DEPARTMENT OF THE NAVY  
MARE ISLAND NAVAL SHIPYARD  
VALLEJO, CALIFORNIA 94582

IN REPLY REFER TO:  
134.05-Ser 376  
9631

JAN 07 1980

From: Commander, Mare Island Naval Shipyard  
To: Commander, Naval Sea Systems Command (05D21)

Subj: Asbestos content of talc suitable for use in MIL-P-24441 paint

Ref: (a) NAVSEA ltr 05D2/6101C/JJT 9631 Ser 55 of 30 May 1979

Encl: (1) Project Proposal, Evaluating the Airborne Asbestos Released by Grinding, Sanding, and Blasting Asbestos Containing Paints

1. Reference (a) requested Mare Island Naval Shipyard to examine four talcs for asbestos content and for comparability to the Pfizer Microtalc CP 20-30 talc used to make reformulated MIL-P-24441 paints.
2. The asbestos content of the talcs was determined by microscopic analysis using dispersion staining. The oil absorptions are based on data reported by the National Paint and Coatings Association and by the talc suppliers. The oil absorptions were determined according to ASTM D-281 which has a reproducibility of  $\pm 25\%$ . The results are as follows:

| <u>Source</u>                        | <u>Oil Absorption</u> | <u>Asbestos Content</u>                                                         |
|--------------------------------------|-----------------------|---------------------------------------------------------------------------------|
| Cyprus Mistron 139                   | 33                    | Slight amount of fibrous tremolite in one of two samples.                       |
| Desert Minerals Talc Co., Hi-Fine 80 | 36                    | Large amounts of fibrous tremolite present.                                     |
| Pfizer Microtalc CP 20-30            | 29                    | Slight amount of fibrous tremolite in one of two samples tested.                |
| R. T. Vanderbilt, Nytal 300          | 29                    | Large amounts of fibrous tremolite and a small amount of anthophyllite present. |

3. The airborne dust hazards of asbestos in paint are unknown. Asbestos fibers that are tightly bound into a paint should not be a problem. However, when paints are removed by dust generating methods, such as sanding or abrasive blasting, asbestos fibers could be released. Dried paints are brittle and the shattering action of abrasive removal could break the paint vehicle away from the asbestos and release the fibers.

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acc (1)

CRMC-HT-TALC-000203

Subj: Asbestos content of talc suitable for use in MIL-P-24441 paint

Talc is a common paint ingredient and is used in a wide variety of paints sold to the Navy. Some talcs are relatively free of asbestos while others may contain from 20 to 60% asbestos. Hence, it is safe to assume that all commissioned ships are coated with asbestos containing paints. The potential for generating airborne asbestos particles during grinding, sanding, or abrasive blasting of ships coated with asbestos containing paints will depend on the amount of asbestos in the dried paint being removed. Unfortunately, there is no standard analytical method for measuring the asbestos content of dried paint and the actual amount of airborne asbestos released by surface preparation of such paints is not known.

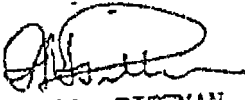
4. The potential problem of generating airborne asbestos particles during surface preparation can be prevented by: (a) prohibiting the use of high asbestos content talc in Navy formula paints and, (b) requiring the use of Navy formula paints whenever practical. However, this approach will not work for proprietary formulas such as those procured under TI-E-490 (silicone-alkyd topside paint). Standard analytical methods for measuring the asbestos content of paints do not exist and there is no accepted limit for the asbestos content of paints. Consequently, there is no way to establish and enforce practical asbestos limitations for proprietary paints.

5. Based on these observations, it is recommended that:

a. The airborne asbestos generated during the surface preparation of high asbestos content paints be investigated. Such an investigation will have to determine the airborne asbestos dusting hazard posed by using different surface preparation methods to remove paints of known asbestos content. A major part of such a task will be to develop analytical methods for determining the asbestos content of wet and dry paints. Enclosure (1) outlines a project to accomplish such a study.

b. Approve Mistron 139 and Microtalc CP2030 for use in MIL-P-24441 paints.

6. Mare Island Naval Shipyard has trained personnel and equipment needed to accomplish the recommended task. However, no technical personnel are available for assignment to the task at this time. The potential airborne asbestos problem associated with asbestos containing paints should be investigated. Mare Island is willing to support such a project to the fullest extent possible but cannot take the lead on such a task until FY 81. It is estimated the project can be completed within 12 months for \$75,000.

  
M. L. PITTMAN  
By direction