FILE NAME: Painters and Allied Trades (PAINT)

DATE: 1973

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DOCUMENT DESCRIPTION: DuPont Tests of Exposure from Sanding Preparakote Primer RE OSHA Asbestos Regs, from NY Talc in the Primer

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
FABRICS & FINISHES DEPARTMENT

CC: R. S. Diem, Mar. Lab.

Marshall R & D Laboratory
April 4, 1973

E. E. SWAIN, JR.
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65-LINE PREPARAKOT E®
SANDING DUST

Attached is a summary of the experiments I performed to determine the amount of airborne asbestos in sanding dust from 65-Line Preparakote®.

The level, in general, is within 1976 OSHA standards for asbestos (2 fibers/ml longer than 5 microns - time weighted average). Unanswered still are:

- The amount of encapsulated asbestos in the respirable dust
- The effect of the encapsulated asbestos on the lung tissue.

I do not know how to determine the amount encapsulated - one guess - would put the maximum as the proportion of talc and asbestos in the paint solids. However, the amount is going to be less than that since we do not count fibers less than 5 microns in length and a significant portion of the respirable dust would be less than 5 microns in diameter.

If we can be of further help, please contact me.

PROCESS CHEMISTRY SECTION
MANUFACTURING SUPPORT GROUP

THOMAS J. NELSON

TJN:jp
4/4/73
ATTACH.

DBY0011145

SUMMARY SANDING SAMPLES

#1 – Taken at refinish training center while operator sanding fender.

Asbestos – 2.3 fibers/ml* (7 fibers/100 fields)

#2 – Taken while sanding panels laying flat on bench top. Filter was 6 inches to the side and 2 inches up from bench. 80% of dust particles flowed below filter.

Asbestos – 1.6 fibers/ml. (2 fibers/50 fields)

#3 – Taken while sanding on bench top. Filter 3–4 inches above sander.

Asbestos – 3.2 fibers/ml* (3 fibers/50 fields)

*NOTE: 1976 OSHA limit is 2 fibers/ml., in sample #1 – 6 hours sanding at this level would meet the 2 fiber limit and #3 – 5 hours. Sample #3 was probably higher in dust than operator would receive since the sample was close to source. In both cases – sanding for longer than 5 hours would be unlikely in a refinish shop.