WALK THROUGH SURVEY

OF

AVON PRODUCTS, INC.
Springdale, Ohio

SURVEY CONDUCTED BY:

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16. Abstract (Limit: 200 words)

Worker exposures to free silica (7631869) and asbestos (1332214) were surveyed at Avon Products, Incorporated (SIC-2844), in Springdale, Ohio, on October 19, 1972. The company manufactured cosmetics and employed approximately 1300 to 1400 people, half of whom worked in production. One kaolin (1332587) bulk and five talc (14807966) samples were analyzed for asbestos and free silica content. Two talc samples contained small amounts of tremolite (1332214) asbestos, one talc sample may have been contaminated by chrysotile (1332214) fiber, and three of the five talc samples contained more than 1 percent by weight of free silica. The kaolin sample contained 0.2 percent free silica. The authors recommend that the use of asbestos containing talcs be minimized in the production of talcum powder. Workers in this area should be given routine chest X-rays.

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PLACE VISITED	:	Avon Products, Inc. Springdale, Ohio 513-671-0100
DATE OF VISIT	:	October 19, 1972
PERSONS MAKING VISIT	:	John M. Dement Harry M. Donaldson Dr. William Johnson Dr. Richard Spiegel
PERSONS CONTACTED	:	Mr. Edward Walker, *Quality Control Manager*
PURPOSE OF TRIP	:	To make a walk through survey and obtain talc bulk samples for analysis for free silica and asbestos.

DESCRIPTION OF THE FACILITY

On October 19, 1972, a walk through survey was conducted at Avon Products, Springdale, Ohio facility. The visit was made by Dr. William Johnson, Dr. Richard Spiegel, John Dement and Harry Donaldson.

This plant began operation in June of 1965 and presently employs 13-14 hundred persons. About 50% of this work force are production workers. The total plant site covers over 100 acres. The present facility has about 600,000 square feet of product area and an additional 400,000 square feet addition is under construction. Manufacturing operations operate on a two shift basis, 16 hours per day.

Corporate headquarters for Avon Products are located at 30 Rockefeller Plaza, New York, New York. In addition to the Springdale facility, other manufacturing plants are located in Suffering, New York and Pasadena, California. Products of the Cincinnati facility include creams and lotions, bath oils, soaps, aerosol items, and dusting powders. Only packaging operations for soap products are located at this facility.

MEDICAL & INDUSTRIAL HYGIENE PROGRAMS

The in-plant medical program includes a dispensary staffed by a registered nurse on two shifts. X-ray and audiometric equipment are not included.

Drs. Todd and Thompson in Glendale provide pre-employment physical examinations and other physician services. Routine periodic examinations are not performed, and both pre-employment and periodic chest x-rays are not taken.

The plant has no industrial hygienist and Mr. Walker was not sure if there is a corporate industrial hygienist. Safety programs in the plant are administered by a safety committee in each department. To Mr. Walker's knowledge, no air samples have been taken at the plant.

DESCRIPTION OF THE TALC PROCESS AND ENVIRONMENTAL CONTROLS

Many processes are carried on at the plant for manufacturing the many products; however, the talc operation was of chief interest during this visit and is described.

Raw materials for the face and spray powders include talc, kaolin, zinc oxide, zinc sterate, color agents, and perfume. These raw materials are received in bags and emptied into a well ventilated mixing station. The raw materials are then pneumatically conveyed to the mixers. After mixing the materials are screened and carried to packing stations. Several aerosol talc compounds are made at the plant. Freon 11, 12, and 114 are used as the propellants for these aerosols.

Environmental control measures in the talc mixing operation are quite good. All hand dumping is done in a well ventilated hood which is equipped with a bag opening apparatus. A Sly bag type dust collector is used in connection with local exhaust ventilation for the area. The floor and equipment are cleaned with a vacuum cleaner and the floor is periodically mopped.

ANALYSIS OF TALC AND KAOLIN SAMPLES

Six bulk samples (5 talc and 1 kaolin) were obtained for analysis. These samples were analyzed for the presence of asbestos minerals (chrysotile and tremolite) and free silica by using both x-ray diffraction and optical microscopy. Two separate x-ray scans were used to determine the asbestos and free silica content. Results of both scans are shown in Tables 1 and 2.

Two of the talc samples were found to contain small amounts of tremolite asbestos and one sample had possible chrysotile fiber contamination. Three of the five talc samples contained free silica in excess of 1% by weight. The kaolin sample was found to contain approximately 0.2% free silica by weight.

CONCLUSIONS AND RECOMMENDATIONS

1. Asbestos and free silica content of the talcs which are being used are quite low. However, due to recent concerns about asbestos contamination in talcum powders, it would be advisable to replace the two asbestos containing talcs with those containing less asbestos.

2. Although control measures in the talc mixing area are quite good, a pre-employment and routine chest x-ray program for workers in this area should be instigated.

TABLE I

RESULTS OF X-RAY DIFFRACTION SCANS

OF

TALC AND KAOLIN BULK SAMPLES

AVON PRODUCTS

Springdale Ohio

SAMPLE #	*TALC*	*CHLORITE*	*PHLOGAPITE*	*CALCITE*	*DOLOMITE*	*α QUARTZ*	*CHRYSOTILE*	*TREMOLITE*	*KAOLIN*
0315-D567	----	----	----	----	----	----	----	----	100%
0755-C162	93%	----	2%	----	2%	3%	----	<2%*	----
0768-E006	63%	20%	2%	----	15%	----	----	----	----
0770-B512	97%	3%	----	----	----	----	----	----	----
0780-E414	98%	----	----	----	----	2%	Possible**	<1%*	----
0815-D977	81%	10%	1%	----	4%	4%	----	----	----

* Confirmed by optical microscopy

** Specimen too severely strained through grinding to allow quantitative measure of chrysotile

TABLE 2

FREE SiO_2 CONTENT OF TALC

AND

KAOLIN SAMPLES

AVON PRODUCTS

Springdale Ohio

SAMPLE #	*SUBSTANCE*	*% FREE SiO_2 BY WEIGHT*
0315-D567	Kaolin	0.2
0755-C162	Talc	1.1
0768-E006	Talc	0.5
0770-B512	Talc	0.4
0780-E414	Talc	1.1
0815-D977	Talc	1.3