LETTER TO THE EDITOR

SAFETY OF CONSUMER COSMETIC TALC PRODUCTS

In a paper entitled "Consumer Talcums and Powders: Mineral and Chemical Characterization" published in the *Journal of Toxicology and Environmental Health* (2:255–284, 1976), Rohl et al. indicated that the disease potential of consumer talc products is unknown and needs investigation. Rohl et al. cite instances of pulmonary disease associated with exposure to talc dusts but fail to identify the composition of the talc dusts and the amounts to which subjects were exposed. Recently a distinction has been made between the composition of industrial talcs and cosmetic grade talcs. Industrial grade talcs are mixed mineral dusts usually containing limited amounts of talc mineral dust, which may be associated with varying amounts of asbestos and/or silica. Cosmetic grade talc consists typically of 90% mineral talc dust associated with mineral impurities as minor constitutents but free of detectable fibrous asbestos minerals (Hamer et al., 1976).

The pulmonary fibrosis associated with talc dust as cited by Rohl et al. has been predominantly reported to occur among employees working in industrial environments prior to improvements in working conditions. For instance, in the report by Rubino et al. (1976) the talc miners were exposed to talc dust known to contain significant amounts of silica.

The example of increased pulmonary cancer mentioned by Rohl et al. was reported in miners exposed to industrial talc dust containing anthophyllite and tremolite (Kleinfeld et al., 1967). Kleinfeld and co-workers (Kleinfeld, 1973; Kleinfeld et al., 1974), however, later reported that the incidence of pulmonary cancer in the mine employees dropped to the normal level for their age following improvements in the working environment.

The biological activity of cosmetic grade talc dust has been evaluated in recent years in controlled animal dust exposure studies and epidemiological studies conducted in mine employees exposed to cosmetic grade talc dust (Hildick-Smith, 1976a).

In one study, hamsters were exposed to cosmetic grade talc dust at a weekly exposure level approximately 1,700 times the amount of talc dust to which an infant would be exposed in a week (Hildick-Smith, 1976a).

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The data obtained showed that the exposed animals at natural death showed no difference in incidence of any pathology noted from that observed in the control animals studied (Wehner et al., 1975). These data and those obtained in other animal studies have failed to produce any evidence that cosmetic talc is a carcinogen (Hildick-Smith, 1976a).

Prospective and retrospective epidemiological studies of employees milling and mining cosmetic grade talc have shown no difference in the incidence of pulmonary fibrotic disease or cancer between the mine employees and a control unexposed cohort, even where a group of talc millers was exposed to approximately 7,800 times as much talc dust in 1 wk as a consumer would be exposed to in 1 wk (Hildick-Smith, 1976a, 1976b).

Although Rohl et al. suggest that cosmetic grade talc may be hazardous to health, the available data indicate that the normal usage of cosmetic grade talc by the consumer is not a hazard to health.

REFERENCES

Hamer, D. H., Rolle, F. R. and Schelz, J. P. 1976. Characterization of talc and associated minerals. *Am. Ind. Hyg. Assoc. J.* 37(No. 5):296–304.

Hildick-Smith, G. Y. 1976a. The biology of talc. *Br. J. Ind. Med.* 33:217–229.

Hildick-Smith, G. Y. 1976b. Talc—Recent epidemiological studies. In *Proceedings of the 4th international symposium on inhaled particles and vapours, Edinburgh, 1975.* Oxford: Pergamon. In press.

Kleinfeld, M. J. 1973. Mortality experience of New York miners and millers. *Information circular 8639, Proceedings of a symposium talc, May 8, 1973.* Washington, D.C.: Bureau of Mines, Department of the Interior.

Kleinfeld, M. J., Messite, J., Kooyman, O. and Zaki, M. H. 1967. Mortality among talc miners and millers in New York State. *Arch. Environ. Health* 14:663–667.

Kleinfeld, M., Messite, J. and Zaki, M. H. 1974. Mortality experiences among talc workers: A follow-up study. *J. Occup. Med.* 16:345–349.

Rubino, G., Scansetti, G., Piolatto, G. and Romano, C. 1976. Mortality studies of talc miners and millers. *J. Occup. Med.* 18:186–193.

Wehner, A. P., Zwicker, G. M., Cannon, W. C., and Watson, C. R. 1975. Inhalation of baby talc powder by hamsters. Paper presented at the 18th International Congress on Occupational Health, Brighton, England, September, 1975.

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