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Information - Hollingsworth and Vose

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Asbestos Crocidolite

I. Known Substitutes

Bolivian Crocidolite, or Blue Asbestos, is presently being purchased by GSA for either the stockpile or delivery to the Army Chemical Corps, who are in turn delivering the fiber to Hollingsworth and Vose, East Walpole, Massachusetts, for the production of filter paper used in gas masks.

There are two substitute materials. One is Cape Blue, which was used during World War II for the production of gas mask filter paper and the other is Fibrous Glass.

II. Status of Technology

Cape Blue, which was used for filter paper production during World War II, is no longer being used for this purpose as it was found that the percentage of failures in the filter produced was running too high. It is possible though that in the event of absolute emergency Cape Blue could again be used, although the cost of course would be increased considerably due to the rigid inspection necessary and the high percentage of failures in paper produced from this fiber.

The Naval Research Laboratory has been conducting research work for some time on the use of paper produced from glass fibers as a substitute for asbestos in the production of gas mask filter paper. The last report we had on this project was that this type of paper had been accepted by the Navy but that the Army still insisted on filter paper made from Bolivian Blue fiber.

III. Present Production Capacity of Substitute

Production of Cape Blue fiber is ample for present and foreseeable needs, but as previously stated, this material is no longer acceptable by the armed forces and there is no stockpile program covering Cape Blue. Production facilities for glass fibers are ample and should this material be accepted by the armed forces, there is no reason for further expansion in this industry to take care of the military needs.

IV. Price Comparisons Between Original and Substitute

Information on price comparison between Bolivian Blue and the known substitutes, Cape Blue and Glass Fibers is not available at this time, although this information can be developed if it is necessary.

Doc 1.3-1
Page 2

V. Consumer Acceptance—Present and Prospective

Since the military is the sole user of Bolivian Crocidolite, the question of consumer acceptance is concerned solely with them. As previously stated, the Navy has already accepted the substitution of filter paper made from glass fibers, but the Army is still insisting on using Bolivian Crocidolite for this purpose.

VI. Sources of Raw Materials and Availability

As previously stated, Cape Blue is in ample supply although it is not being stockpiled, and since this material comes from the Union of South Africa, the problem of transportation would become acute in the event of war. All raw materials used in the production of glass fibers are readily available within the United States.

VII. Recommendations on Government Incentives, Financial or Otherwise, to Stimulate Development

It is recommended that research be continued on the development of filter paper made from glass fibers and efforts made to secure its acceptance by all branches of the military.