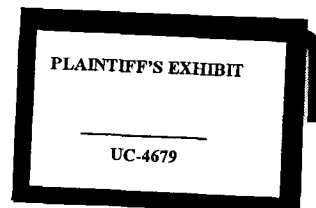




INTERNAL  
CORRESPONDENCE



UNION CARBIDE CORPORATION P.O. BOX 1029, GRAND JUNCTION, COLORADO 81502  
METALS DIVISION (303) 245-3700

|           |                                                                       |                   |                                                                                           |
|-----------|-----------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------|
| To (Name) | Mr. W. C. Thurber                                                     | Date              | February 22, 1984                                                                         |
| Division  | Metals - J1398                                                        | Originating Dept. | E/R-Occupational Health                                                                   |
| Location  | Danbury, CT                                                           |                   | Product Safety                                                                            |
| Area      |                                                                       | Area              |                                                                                           |
| Copy to   | Messrs. B. L. Ingall<br>D. F. Kapral<br>W. C. Kuryla<br>W. F. McClure | Subject           | MSDS and Product Label<br>Asbestos Alteration Product<br>(Synthetic Olivine)<br>(3.3.3.2) |

*Handwritten:*  
2/22/84  
RJK  
JLM  
3/5

This confirms our telephone conversation of February 21, 1984. It is intended to provide a review of the current situation and outline a background for management decisions as the project moves forward.

Based on discussions with Messrs. Ingalls and Kapral, the high temperature calcined material appears to be essentially a synthetic olivine. The only notable difference is the iron is present as magnetite,  $\text{Fe}_3\text{O}_4$ , rather than as enstatite,  $\text{MgO-SiO}_2$ . Olivine has been used for many years with minimal health hazard reported, i.e., it is basically a nuisance dust. The olivine analogy requires that two conditions be met:

1. The calcination has eliminated or reduced the amount of asbestos and/or fiber-like material to less than some defined small level.
2. The level of free crystalline silica (quartz) produced in the recrystallization is less than 1% by weight.

There is no question that any material derived from asbestos is inherently suspect as a health hazard regardless of its true risk. Even a totally harmless material of this origin represents a future product liability risk due to the costs of defense against spurious lawsuits. The testing and eventual marketing of the product obviously needs to include careful consideration of this potential problem area and the development of a reasonable approach to risk management.

Before the material is used in a large number of places or in large quantity testing, it is quite desirable to have completed at least the RAM testing and preferably also the dust inhalation toxicity tests. The standard acute toxicity series would complete the picture before routine commercial use. Implicit in the foregoing discussion is assumption that all of the testing continues to confirm the validity of the natural olivine analogy. Different results may dictate a different strategy.

I will be glad to discuss this further at your convenience. Both the label and MSDS can be produced very quickly once all of the necessary approvals have been received.

*H. B. Rhodes*

H. B. Rhodes

HBR/sw

Attachment

