

ETHYL GASOLINE CORPORATION

CHRYSLER BUILDING
405 LEXINGTON AVENUE

SAFETY COMMITTEE

NEW YORK March 9, 1938

O. B. LEWIS
CHAIRMAN

Dr. W. F. Machle
Kettering Laboratory of Applied Physiology
College of Medicine, Eden Avenue
Cincinnati, Ohio.

Dear Dr. Machle:

For your further information in connection with the tests you have been conducting on airline hoses, we are quoting the following letter received from Mr. Baldwin:

"Mr. Myers of Atlantic Refining Co., Philadelphia reports that several years ago they had considerable trouble with air line hose becoming soaked with gasoline so that the wearer of the mask got gasoline fumes long before the hose appeared to be worn out. They did quite a lot of experimenting before they found the trouble.

"These hose are as you probably know treated with an impregnating material to make them oil resistant. They found that this material is usually 56% denatured alcohol, 39% gum (kind unknown) and 5% lamp black. When this hose is used in a tank where naphtha and certain other materials are treated with caustic soda resulting in what they call 'Black Strap' in the bottom of the tank that the caustic soda attacks the denatured alcohol and removes it from the hose. This leaves the gum brittle which cracks and permits gasoline to be absorbed by the hose.

"Their method developed to overcome this is not use a hose any place else that has been used in this type of operation. A hose is used here only half a day when it is renewed and the old hose cleaned and dipped in a solution of the above impregnating material. Five gallons of this material is usually enough to treat 40 lengths of hose.

"In view of this it might be desirable to limit the use of an air line hose to be used in cleaning leaded gasoline tanks to that one use only. At least this information may give Dr. Machle a lead in attacking the problem."

This report appears to offer a logical explanation as to the varying life of hoses used under similar conditions in tanks but containing different products.

Very truly yours,

O. B. Lewis