

June 8, 1957

Dr. R. E. Eckardt, Director
Medical Research Division
Esso Research and Engineering Company
P.O. Box 45
Linden, New Jersey Attention: Mrs. Lois C. McTurk

Dear Mrs. McTurk:

Please accept my apologies for my long delay in replying to your letter of March 13. Since my return from abroad in March, I've been unable to get out from under the immediate demands of the day's work, and my correspondence has suffered severely.

We have not made any experimental observations on any of the compounds referred to in your letter. Some years ago we carried out some fairly brief experiments with tetraethyl tin, but this is the only member of the alkyl compounds of tin that we have had occasion to examine.

I think I might make the generalization, with reasonable assurance, that all of the compounds mentioned will be highly toxic, if - and this is a fairly important "if" - they are absorbed into the body in appreciable quantities. This, of course, under the practical circumstances of their handling, will depend upon their volatility on the one hand, and their ability to penetrate through the skin, on the other. To the extent that they are liquids, they may be expected to be absorbed fairly readily through the skin. If they are solids, at ordinary or body temperatures, they will probably be absorbed readily through the skin only when dissolved in a suitable organic solvent. One cannot be certain of these facts without putting them to the test, but from the aspect of the safety of their handling before they have been tested in this regard, it must be assumed that these facts are true. Our practice in the Detroit Laboratories of Ethyl Corporation is to assume that every one of these compounds behaves like tetraethyl lead until we have proved that this is not the case. Measures of safety (prevention of inhalation of vapor or dust, prevention of skin contact, and decontamination procedures based upon the destruction of the organic compound) are applied rigorously until such a time as appropriate information has been obtained. This policy has resulted in the suspension of the investigation of the specific physiologic and toxicologic properties of quite a number of materials of this and related types, until they have been found to have some technologic promise.

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We in this Laboratory are interested in the behavior of these compounds, and welcome any opportunity to investigate them. However, in my role in Ethyl Corporation, as differentiated from that in the Laboratory, I advise their investigation, as a general rule, only when the circumstances appear to justify such investigation from the aspect of industrial hygiene or public safety. To do more would result in unreasonable expenditures of funds and some degree of irresponsibility on my part in the administration of the medical and hygienic affairs of Ethyl Corporation. I make mention of this only because it would be assumed, properly, by some of our colleagues, that we would be more than a little concerned to obtain toxicologic information on compounds of this general type. Indeed we are, but the means of investigating such materials systematically is not available to us.

Cordially yours,

Robert A. Kehoe, M. D.

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