

June 15, 1943

Master Sergeant Oscar P. Cohen,
40th Chemical Laboratory Company,
6th HQ Special Troops,
II Armored Corps,
San Jose, California.

Dear Sergeant Cohen:

In response to your letter of June 8, let me say that I shall be very glad to send you reprints of the available toxicologic information on lead tetraethyl. Before doing so, however, I think I should call your attention to the fact that this compound has already been investigated quite thoroughly by ourselves and others, and also by the Chemical Warfare Service. No doubt you are familiar with the publication of Gilchrist, and of the conclusion of the toxicologists at Edgewood Arsenal, concerning this compound and its applicability as a chemical warfare agent. I do not presume to instruct you in matters that are your own affair, but it would seem that this compound has had very extensive toxicologic investigation, and that very little more could be added to what has been done, with immediate practical advantage.

So far as the other lead alkyls are concerned, the only one I know that has been investigated extensively is lead tetramethyl. Some work has been done on the various compounds represented by varying proportions of methyl and ethyl radicals. At least a sufficient amount of work has been done to show that all of these compounds are similar in their toxicity and mode of action, and that they owe their toxicity to their lead content. The toxicologic information on these compounds with the exception of tetraethyl lead, has not been published. We have a considerable amount of information, enough, I believe, for most practical purposes, and obviously we should be glad to make this available, although it would take quite some time to put the material together. It would be my opinion that a great deal of time might be saved and a great deal of duplication might be avoided if some member of your organization could visit this Laboratory so as to obtain for himself the information which we have in addition to that which is published. I am certainly not aware of subsequent problems which you may have in mind, but I believe it is fair to say that much of the information which you will be required to discover is already available. Also I think we should

Master Sergeant Oscar P. Cohen - (2) - June 15, 1943

be able to answer many of the questions which will arise, by virtue of our experience with this group of compounds. Certainly it ought not to be necessary to do very much work beyond that which has already been done, in order to determine the practical usefulness of these compounds.

With reference to the physical and chemical properties of the lead alkyls, I believe it is fair to say that the best information can be obtained from Dr. George Calingaert of the Ethyl Corporation. Dr. Calingaert can be addressed as follows:

Dr. George Calingaert,
Ethyl Corporation,
1700 West Eight Mile Road,
Detroit, Michigan.

Most of the information which I have concerning the strictly chemical behavior of these compounds has come from him, and it would be better, I believe, if he were to give you the information himself. In this way, I shall not be giving out information which may not be the last word, and I shall not be dealing in confidential information.

Under separate cover I am sending you some of the available information. In certain of the reprints you will find a number of other references. If you care to raise any further questions after examining these articles, I should be glad to reply as well as I can.

Cordially yours,

Robert A. Kehoe, M. D.

RAK ef

KE 0009907