

May 11, 1940

Mr. H. D. Pease
Pease Laboratories, Inc.
39-41 West 38th Street
New York

Dear Mr. Pease:

I should have been very glad to see you at the recent meeting of the Chemical Society in Cincinnati, and I should have been especially pleased to show you the results of some unpublished and incomplete work on the problem of oral lead intake. The paper to which you referred in your letter was a part of this uncompleted work. I shall carry the subject somewhat further in a paper which I shall give in New York at the meeting of the American Industrial Hygiene Association on June 5th. The paper has not been published and it will probably not be published in final form for quite some time. On the other hand I am debating as to whether I shall offer the first section of it for publication in the Journal of Industrial Hygiene at an early date. Certainly the most important points of it will be discussed in the New York paper to which I referred.

As to the problem of lead absorption through the skin, I think it is fair to say that with the exception of the organic lead compounds, such as tetraethyl lead, there is no significant absorption of lead through the skin. It is possible, of course, that some of the soaps are appreciably absorbed, but considering the dosage which is required to produce a measureable change in the rate of lead absorption and excretion, I do not think that any of the inorganic compounds of lead are of any hygienic importance from the point of view of general investigation except to the extent that their presence on the skin is likely to result in the contamination of the hands and food with appreciable ingestion. So far as I know crucial experimental observations have not been made on this subject, and it is very difficult in the case of experimental animals to provide for repeated exposures of the skin in such a way as to avoid the ingestion of lead by the animals. Our own observations, however, made from time to time with soluble salts have failed to reveal any evidence of appreciable absorption through the skin. The experiments are not adequate to answer the question but in view of the ease with which lead absorption is detected when exposure occurs through other routes, I am disposed to feel that skin exposure to inorganic lead compounds is of no importance practically except in so

far as damage to the skin may result from contact.

I should be glad to let you have a copy of my paper as given in New York. This will have in it a large mass of quite valuable data with reference to the fate of lead when taken into the body by mouth. I expect to have some mimeographed copies of the paper and I will send one to you as soon as possible.

Cordially yours,

RAK:is

Robert A. Kehoe, M.D.