

Copy to Mr. Mittnacht

December 10, 1934

Dr. Herman Cowan
875 West End Avenue
New York City
New York

Dear Dr. Cowan:

Your letter of December 4th inquiring about the effects of tetraethyl lead upon the skin and addressed to the Ethyl Gasoline Corporation, has been referred to me for reply.

I am not just sure in what aspect of the matter you are most interested, but so far as I know there is nothing in medical literature as to the specific effects of tetraethyl lead upon the skin. Observations have been published which show that tetraethyl lead is absorbed through the skin of experimental animals, and there are sufficient data to give a general idea of the speed of absorption as well as the fate of the compound after absorption. Unfortunately the article that we have published and which contains the most information is now not available to me in the form of reprints, since my supply has been exhausted. However, I can cite you the reference as follows: "The Behavior of Lead in the Animal Organism II Tetraethyl Lead" by Kehoe and Thamann, in the American Journal of Hygiene - Vol. 13, p. 478 - 498 - March 1931.

The only other article on the subject is my article "On the Toxicity of Tetraethyl Lead and Inorganic Lead Salts", a copy of which I am sending you.

When tetraethyl lead is applied to the skin of animals or human beings, there is very little evidence of an injurious reaction. There is a slight and transient hyperemia, and subsequently there is likely to be a slight edema which does not persist for longer than twelve to twenty-four hours, leaving the skin without any apparent injury. The oil, tetraethyl, is apparently not irritating and it has no corrosive effect, and when applied to one's own skin it does not produce any burning, itching, or other discomfort. I dare say it is for this reason that nothing has appeared in the literature on the subject of its effects upon the skin, for in so far as

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I know, no one has observed any injurious effects to the skin.

If this does not answer your question and if there is any other information which I can give you, I would be glad to have you write me further.

Very truly yours,

RAK:IS

Robert A. Kehoe, M.D.