

January 15, 1948

Dr. Frank W. Konzelmann,
Director of Laboratories,
Atlantic City Hospital,
Atlantic City, New Jersey.

Dear Dr. Konzelmann:

Your letter of December 30 addressed to Ethyl Corporation has been referred to me for reply, since I and my associates in this Laboratory have conducted the experimental and toxicologic work on all phases of the problem of gasoline containing tetra-ethyl lead. Incidentally the problem presented by you in this case is not new to us, since this Laboratory, through members of its staff, is responsible for the work of the Coroner of Hamilton County with respect to the determination of the cause of death in such instances. The problem is not always simple, and sometimes it must be admitted, it goes unsolved.

In connection with the use of leaded gasoline as fuel in automobiles, there is no toxic combustion product which results from the use of this fuel which complicates the picture of acute intoxication from exposure to exhaust gases. The lead compound present in the fuel in low concentration is burned to inorganic lead compounds, which appear in the exhaust gas in low concentration. Under suitable circumstances it might conceivably occur that some degree of measurable lead absorption would result. However, it is not possible that such absorption could occur to such an extent as to be significant over any short period of time. The experimental observations made by ourselves together with those of the United States Bureau of Mines, have shown that the lead exposure is so slight as to be insignificant over short periods of time,- that is, hours, days or weeks. There is nothing, therefore, in this fuel which would produce a picture different from that of ordinary gasoline.

Investigations made on this subject by the Bureau of Mines were published so long ago that the bulletins of the publication are no longer available. Moreover, most of the published work on this subject is now out of print in the form of reprints, but I am sending you several of the available reprints in which will be found references to the previous publications which I am sure you can find in any good medical library. If any further questions arise in your mind after examination of the published material, I should be very glad to have them brought to my attention.

Cordially yours,

N13964

Robert A. Kehoe, M. D.