

1. There are several types of anti-knock fluids containing tetraethyl lead, (1) aviation fluid, which contains only ethylene dibromide as the halogen carrier, (2) motor fluid, which contains ethylene dichloride in addition to ethylene dibromide and also certain other chlorinated compounds (it is a question of having a suitable proportion of available halogens, and in the automobile engine the temperature of operation ranges within limits which made it advisable to have some chloride present as well as bromide). In addition to these ingredients kerosene is used as a diluent just to the point which makes the proportion of tetraethyl lead constant in all of these fluids, so as to facilitate blending in gasoline to the correct level of concentration of tetraethyl lead per gallon of gasoline. The dyes used in the fluid and in the gasoline are many - red, blue, purple, orange and even brown - and are used to differentiate specific brands and grades of fuel.

2. Modern gasolines are sufficiently different in their susceptibility to the addition of lead, from those of the late twenties and early thirties, that a much higher concentration than 3 ml. of tetraethyl lead per gallon could be employed to advantage. Aviation gasoline, for example, may have up to 4.6 ml, and it could have much more. The present reasons for avoiding the increase are of a totally different character, and right now the primary reason is hygienic, although it is not necessary, and perhaps not advisable for you to so indicate.

3. The implication of the remark about the plants in the U. S. A. might be taken to mean that there are no manufacturing plants elsewhere. It might be well to make clear that this is not the case for there are plants in Great Britain, France, and Italy. There are others in Russia and perhaps, but probably not, in certain of its satellite countries. A plant is also under construction in Canada.

Lead Industries Association

November 30, 1955

Mr. Manfred Bowditch
Lead Industries Association
420 Lexington Avenue
New York City 17

Dear Manfred:

First let me thank you for the 20 copies of the Lead Poisoning Symposium. Our supply having been exhausted completely some time ago, these are a welcome contribution.

I cannot hope to reply to or even to acknowledge receipt of your various communications, all of which are of use in informing me of the state of the nation in certain respects. However, I can reply to your letter of November 23 concerning the publication of Mr. Ziegfield's paper. I appreciate your courtesy in raising the question, and I hasten to affirm your correctness in believing that I could have no objection to the publication of this useful paper. It occurs to me, however, that certain statements about "ETHYL" fluid and tetraethyl lead made in the paper were not up-to-date or strictly true, and therefore I call specific attention to them by attaching that part of the paper, together with certain comments.

With kindest regards,

Sincerely yours,

Robert A. Kehoe, M. D.

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