

UNIVERSITY OF CINCINNATI
DEPARTMENT OF PREVENTIVE MEDICINE AND INDUSTRIAL HEALTH

THE KETTERING LABORATORY
COLLEGE OF MEDICINE — EDEN AVENUE
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March 3, 1960

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Copy to Mr. W.R. Fardine

David E. Price M. D.
Assistant Surgeon General
Chief, Bureau of State Services
U. S. Public Health Service
Washington 25, D. C.

Dear Doctor Price:

Please accept my thanks for your letter of February 29th, which has enabled me to bring to the attention of the industries concerned, the views of the Public Health Service concerning the substitution of tetramethyl lead, in whole or in part, for tetraethyl lead. I am sure that these views will be taken in complete good faith by the managements of the manufacturers and distributors of the products involved.

There are several practical questions on which I should like to have such guidance as you and your staff are prepared to give me. I am entirely willing to advise the companies on these matters, but it would be helpful if I could give such advice as would be acceptable and in the spirit of our mutual professional relationships.

The first of these relates to the maximum concentration of TML and the basis for relating it to TEL. Should the maximum concentration of TML in gasoline correspond, in its lead content, to 4 ml. of TEL per American gallon? Or should the maximum concentration of TML be limited so as to correspond in its lead content to that with which some experience has been had - namely, to 2.06 ml. per American gallon? I do not ask you to decide this officially, but I should like to have your views. A further question, which arises out of the former question, is - Is the adoption of a maximum level for TML properly based on the equivalent of the element, lead, as it occurs in TEL? I can see no other valid basis, but I should like to be sure that there is no difference in our view of this matter.

The second question has to do with the warning signs on pumps and certain other containers. Because the present signs were prescribed in exact detail by the Service, I hesitate to suggest any alteration of them to meet the present situation without consultation with you. I believe the simplest modification of the sign to make it both correct and adaptable, would be to use the designation "Lead Alkyl" where the sign now uses the words "Lead Tetraethyl." It may be necessary, of course, to vary the wording of the sign if certain of the States call for some designation of their own, but in order to forestall this outcome, if possible, I would like the industry to move in such manner as to handle this satisfactorily from the start. One sign, with simple wording that will cover both antiknock compounds (i.e., those containing TEL as well as those containing TML), would be the best arrangement, since otherwise any local change of product would result in

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confusion. It will be difficult, of course, to make all of the signs satisfactory in any area of the country, but this can be done gradually, as the partial use of TML spreads (as I am convinced it will if and when it has been shown to be satisfactory and advantageous in various areas of the country). The petroleum industry is conditioned to being wary of false or inadequate labeling, and this matter is being taken quite seriously by them. I must be prepared to make a decision on it promptly, and I should like to know that what I advise will meet with, at least, the tacit approval of yourself and your associates. Anything you have to say to me on this score will be treated with the greatest respect, and I may say, with gratitude. I shall be prepared to regard your views as being directed to me only, if you and your associates so desire, or alternatively, I shall pass them along to the industry as coming from the Service if you so desire. Let us be quite clear on this, I am prepared to take such action on this matter as I believe to be required, and I believe my recommendations will be followed faithfully. These matters, hitherto, however, have been within the province of the Service, and I do not wish to make any assumption about the propriety or extent of their alteration. Moreover, as has always been the case, I am pleased to maintain the best possible personal and professional relationships, without compromise of my own views or yours, with yourself and your associates.

There is only one other point to be considered at this time in terms of the questions that have been asked of me. It will come up again and it may as well be raised now. This relates to the permissible total concentration of organic lead compounds in gasoline. In case both TEL and TML should be used in the preparation of a single brand of gasoline, I would construe the maximum concentration of lead (Pb) to be not in excess of that which would obtain if tetraethyl lead alone were being used. If the upper limit for TML were not to exceed 2.06 ml. per American gallon of gasoline, the remainder, if any, up to a maximum total lead content equivalent to that of 4 ml. of TEL per American gallon of gasoline, could be made up of TEL. This provision can be accomplished, I believe, by means of contracts between the suppliers of alkyl lead compounds as antiknock agents, and their customers. This provision could be changed later if it should be found to be justified.

If and when you and your associates are prepared to advise me in any manner that you may choose (verbally or in writing) on the foregoing matters, I shall be grateful. While I do not wish to press you for an answer, I should point out that these matters will move fairly rapidly, and I shall have to provide some early answers to the questions that have been raised. I shall be most grateful, therefore, for any advice you may be prepared to give me.

Sincerely yours,

Robert A. Kehoe, M. D.

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