

January 13, 1933

Dr. Graham Edgar
Ethyl Gasoline Corporation
Chrysler Building
New York City
New York

Dear Doctor Edgar:

It appears to me that the project of using tetraethyl lead in lubricating oil possesses very definite potentialities for difficulty. The two points at which it seems to me trouble might well occur, have to do with possible volatility of tetraethyl lead in lubricating oil and the possibility of skin absorption of tetraethyl lead out of lubricating oil. So far as I know, there are no data on which to determine the practical importance of either of these matters. I know nothing of the vapor tension of tetraethyl lead in lubricating oil. It may be negligible, but on the other hand as far as my judgment goes, one might guess equally well that it is significant. Furthermore, I know of no information on the partition of tetraethyl lead as between lubricating oil and skin, and I see no necessary relationship between this problem and that which is presented when tetraethyl lead is dissolved in gasoline. I do not believe that the Public Health Service would be likely to give their approval to the use of lead for this purpose. However, whether they would or not, I should advise against the acceptance of any responsibility for the thing on the part of the Ethyl Gasoline Corporation, until these factors have been investigated and until some sort of reasonable answer has been obtained to these questions.

Furthermore, if this treatment of lubricating oil were to become general, one would have to consider the eventual disposition of the discarded crank case oil, as well as numerous other matters which are somewhat speculative.

Cordially yours,

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