

Copy to Mr. Mittnacht

April 13, 1934

Dr. C. D. Moore
Ferrine Building
Oklahoma City
Oklahoma

Dear Dr. Moore:

Your letter of April 7th addressed to the Ethyl Gasoline Corporation has been referred to me for reply.

Siphoning gasoline with the mouth is obviously not a very good practice though one is certain that it is done rather frequently in. The chief danger is that the gasoline itself is quite injurious to the mucous membrane of the mouth producing hyperemia and considerable irritation, dependent upon the length of time the gasoline is in contact with the mucous membrane. If the mouth is at all sore or if the gums are somewhat inflamed with pyorrhea, the contact is painful and may lead to ulceration. If the gasoline is swallowed, it produces a considerable irritation and may cause erosion of the gastric mucosa and variable amounts of ulceration dependent upon the quantity. Vomiting usually results, and for this reason damage to the small intestine is usually avoided. However, ingestion of gasoline even with water results in a severe toxic enteritis. These things all occur with ordinary gasoline and the picture is in wise influenced by the presence of the minute amounts of tetraethyl lead that occur in commercial gasolines. The amount of lead in commercial gasoline is never more than (1) part in (1260) parts of gasoline by volume, and at the present time most of the gasolines contain very much less than this proportion. Thus if you will calculate the amount of lead which is present in a mouthful of gasoline, (not more than 30 cc.) you will recognize at once that the quantity of lead which might be swallowed or absorbed is quite insignificant. Obviously, if one were to repeat this performance over and over for a considerable period of time, it is conceivable that eventually enough lead might be absorbed to give rise to lead poisoning. However, this is doubtful since the immediate toxicity of the gasoline is such that injury from the gasoline would greatly outweigh the injury from the slow absorption of lead.

Dr. C. D. Moore

From the above information I believe you will recognize that a claim for lead poisoning as the result of taking small amounts of gasoline into the mouth is in the very nature of the case ridiculous. It springs from two things; first, a failure to understand the irritating qualities of gasoline; and second, a lack of appreciation of the minuteness of the quantities of lead involved.

I trust that the above information will be satisfactory for your purposes, but I should be pleased to answer any questions you may propose in further detail, if you wish to call upon me.

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I might indicate one other fact which is not generally known, namely, that in the period of nine years during which leaded gasolines have been used continuously in certain parts of the United States, there has never yet been a substantiated case of lead poisoning as a consequence of the handling of gasoline. In fact, there is now no adequate reason for believing that the dangers of handling leaded gasoline are any greater than those associated with the handling of ordinary un-treated gasoline.

Very truly yours,

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Robert A. Kehoe, M.D.

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