

December 23, 1937

Dr. George J. Seibold
Balyeat Hay Fever and Asthma Clinic
Oklahoma City
Oklahoma

Dear Doctor Seibold:-

Your letter of December 11th to Mr. Ronan of the Ethyl Gasoline Corporation came to me some days ago, and a day or two later your letter followed. The case which you describe is of interest to me particularly because such cases are always a puzzle, but more particularly because we have had several corresponding experiences. However I think I am in position to give you at least a tentative solution of your problem without resorting to the method of employing tetraethyl lead in patch tests. I may say that it is not advisable, in my opinion, to use this material in patch tests without considerable caution, but I may also tell you that tetraethyl lead is not a skin irritant and that in our experience, in cases of this type, it has regularly given negative results.

I am sending you herewith an article written on this subject by one of my associates in the laboratory. You will note that he has gone to a great deal of pains to determine the nature of the irritant material. It is undoubtedly some fraction of the gasoline itself and in as much as we have found that gasoline bases vary considerably in this respect, we are quite certain that the substance or substances do not occur uniformly in gasoline. Dr. Machle is attempting to isolate the material or materials which are capable of producing these sensitivity phenomena. They seem to be chiefly associated with unsaturated hydrocarbons and it is our tentative opinion that they might be the pre-cursor of the gums and waxes which are found to variable degree but especially in cracked gasoline. The materials are difficult to isolate and they will undoubtedly be difficult to identify if and when they are isolated. We are quite certain, however, that they bear no relation to the tetraethyl lead content except to the extent that gasoline containing tetraethyl lead is likely to have a larger content of cracked gasoline than are the cheaper grades of straight-run petroleum distillate.

Since you have asked for further information on tetraethyl lead, I am sending you some additional information which may be of interest to you.

Unfortunately one of the articles which I would like to send you is not now available to me in reprint form, but if you are interested in seeing this article, it can be found in the Journal of Industrial Hygiene for March 1934, Volume XVI, under my name and that of two other associates in the laboratory. If you are further interested in the question of lead poisoning in so far as we have studied it, I refer you to a series of articles which appear in the Journal of Industrial Hygiene - Volume 15 - September 1933.

As to the treatment of your case of gasoline dermatitis, we have found that in general these cases respond to the usual type of ointments and they clear up somewhat slowly at times but in other instances they clear up very rapidly after removal from exposure to gasoline liquid and vapors. In one or two serious cases which we have seen, we have found it necessary to advise the patient to avoid all contact with gasoline or its vapors, and if necessary to accomplish this purpose, to change his employment. This is rather severe advice, but in our opinion it is better than having recurrences of the original difficulty. You may also be interested in knowing that we have seen a few cases in which the individual was highly sensitive to any gasoline with which we chose to test him.

I trust this will give you some of the information you require, and if I can be of any further assistance to you, I shall be glad to do so.

Very truly yours,

RAK:is

Robert A. Kehoe, M.D.