

March 12, 1942.

Mr. C. Leo Guynn,  
Claims Manager,  
The Industrial Commission of Arizona,  
Phoenix, Arizona.

Dear Mr. Guynn:

Your letter of March 3, addressed to the office of Ethyl Gasoline Corporation, in Los Angeles, has been referred to me as the chief medical adviser of Ethyl Gasoline Corporation. I am very glad to have the opportunity of giving you the information requested, and I am sending you herewith one or two publications on the subject, which are pertinent.

I might point out in the beginning that the concentration of tetraethyl lead in commercial gasolines is quite low. It does not exceed one part in 1260 by volume in gasoline, and most commercial gasolines contain considerably lower concentrations. Tetraethyl lead itself is not a skin irritant. In its concentrated form, applied to the skin, it produces a little redness, which is of short duration, but it does not cause a chemical irritation. In fact, it is absorbed through the skin without producing material or definite injury. Gasoline, on the other hand, is quite irritating to the skin, and modern gasolines with their frequently high content of unsaturated cyclic hydrocarbons, are much more likely to be irritating than is straight run gasoline distillate. Accordingly, we have seen more dermatitis due to contact with gasoline in recent years than we did in the past. This has nothing to do with tetraethyl lead, but inasmuch as tetraethyl lead is used in most of the gasoline bases of this type, it has come to be regarded with suspicion, chiefly for the reason that attention is always called to the presence of lead in the gasoline, whereas nothing is said about the methods of manufacture of the gasoline base. Actually, the only danger which is thought of by us in connection with tetraethyl lead in gasoline is that of the possibility of lead absorption through the skin as the result of contact. However, extensive experimental work and years of experience have demonstrated that such absorption does not occur in the case of commercial gasolines with their low lead content. Indeed, experimentation has shown that if the gasoline does not contain more than one part per thousand of tetraethyl lead by volume, the absorption of lead through the skin does not occur as the result of contact. In

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Mr. C. Leo Guyann - (2) - March 12, 1942.

other words, dilution of tetraethyl in gasoline hinders absorption and actually prevents it within the limits of concentration commercially employed. It is precisely for this reason that the lead concentration in gasoline is limited to low concentrations that do not give rise to the danger of lead absorption on the part of the men who handle gasoline and who come in contact with it from time to time.

Returning to the subject of gasoline dermatitis, our observations have shown that this is sometimes a very real problem. A small percentage of persons become sensitized to the gasoline, and develop rather severe skin lesions which will not clear up unless all exposure to liquid or vapor is discontinued. Other persons develop the somewhat dry fissured skin that results from the extraction of the oils of the skin, but without much damage otherwise. Fortunately, this is the more common picture, and it results in little or no disability unless the skin becomes infected with bacteria or fungi.

I trust this gives you the information you require, but if any further questions arise, I shall do my best to answer them.

Very truly yours,

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Robert A. Kehoe, M. D.

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Enc.

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*copy sent*

# ETHYL GASOLINE CORPORATION

LOS ANGELES DIVISION

977 WEST SIXTH STREET

LOS ANGELES, CALIFORNIA

INTER-OFFICE  
CORRESPONDENCE

March 5, 1942

Dr. Robert A. Kehoe

Dear Doctor Kehoe:

We are enclosing a letter we received from Mr. C. Leo Gynn, Claims Manager of The Industrial Commission of Arizona at Phoenix.

We felt that this letter should be sent directly to you for handling.

Yours very truly,

S. M. Wagoner



AHC:DS

By: A. H. Chenault

c.c. Mr. O. B. Lewis

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# The Industrial Commission Of Arizona

CLAIMS DEPARTMENT

Phoenix, Arizona

March 3, 1942

L. C. HOLMES, CHAIRMAN  
LYNN LOCKHART, MEMBER  
E. T. HOUSTON, MEMBER

C. LEO GUYNN  
CLAIMS MANAGER

MAR 3 - 1942

Ethyl Gasoline Corporation,  
Los Angeles, California.

Gentlemen:

This department has recently encountered several cases of employees suffering from local infection, which is claimed to have been caused from coming in contact with Tetra Ethyl Lead as used in gasoline.

We are therefore anxious to obtain any possible information and ask if you have any literature available covering this subject that it be forwarded to us. Any information regarding infections of this kind which you may be able to furnish us will be greatly appreciated.

Thanking you we remain

Yours very truly,

C. Leo Guynn,  
Claims Manager

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