

July 29, 1935

Mr. R. A. Trainer
Safety and Rating Department
General Accident Assurance Corp.
General Building
4th and Walnut Streets
Philadelphia, Pa.

Dear Mr. Trainer:

We have your letter of July 24th addressed to Dr. Robert A. Kehoe. Dr. Kehoe will be out of the laboratory for some time and I am taking the liberty of answering you in the interim. He may wish to discuss the matter more fully with you after his return.

We gather from your first paragraph that you are most interested in the dermatitis hazard associated with the handling of Ethyl Gasoline. If such is the case, the publication of the United States Department of Labor contains very little information for you, as the only reference to irritation in that publication is limited to a statement that Ethyl Gasoline is irritating when gotten into the eyes, with no conclusive evidence offered that Ethyl Gasoline is more irritating in this respect than others not containing lead. It has been established by the previous work of this laboratory under the direction of Dr. Kehoe that there is no hazard to the gasoline handlers or consumers from Ethyl Gasoline due to the lead contained in it. We are forwarding you under separate cover the full discussion of this problem in the form of a reprint of a paper of Dr. Kehoe's.

To return again to the question of dermatitis, we have been informed of a number of cases of dermatitis alleged to be due to the handling of Ethyl Gasoline during the past ten years, and have investigated many of these complaints. In no instance has it developed that the Ethyl Fluid in gasoline was in any way involved in producing the dermatitis. We have, furthermore, been able to find no experimental or clinical evidence that Ethyl Gasoline is more irritating to the skin than other gasolines. It is true, however, that in recent years gasolines have

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become increasingly more irritating due in all probability to the higher proportions of "cracked" gasoline added to improve the anti-knock rating. These "cracked" gasolines contain appreciable amounts of olefines and diolefines. These oxidize and polymerize to form a great variety of intermediate compounds, many of which are extremely irritating and finally go over into a relatively solid gum.

If we can be of any further assistance to you, do not hesitate to address us.

Very truly yours,

WFM:is

Willard F. Machle, M.D.