

COPY TO: DR. E. E. EVANS, Hospital
DR. I. GUBELMANN
DR. H. W. ELLEY
MR. J. SCHAEFER, Ethyl Gas.

E. I. du Pont de Nemours & Co. C O P Y

Wilmington, Delaware

March 13, 1935

Dr. Arnulf Esterer,
Hawkesbury, Ontario,
Canada.

Dear Dr. Esterer:

I am referring to our Medical Department a copy of your letter asking for information on the safe handling of tetra ethyl lead.

In the meantime, however, it should be pointed out that rubber gloves in connection with tetra ethyl lead are extremely dangerous. They do not only prevent the absorption of tetra ethyl lead but present a hazard in themselves, as they are capable of absorbing appreciable quantities of tetra ethyl lead without disclosing the fact by an obvious change in properties. They are, therefore, distinctly unsafe as they create an entirely false sense of security.

Tetra ethyl lead vapor is readily absorbed in any of the standard gas masks. Absorbent charcoal, for instance, picks it up very readily. It is also readily destroyed by strong acids or powerful oxidizing agents, but probably the best gas mask used in conjunction with it is one of the standard masks equipt with the so-called Universal cannister. On the other hand, our principle in working tetra ethyl lead ourselves has been that if there is any tetra ethyl lead vapor in the air there is something fundamentally wrong with the working conditions and steps should immediately be taken to remedy these conditions. Laboratory work, for instance, is done in specially constructed hoods which insure that no lead ethyl vapor will come out into the room or reach the man who is doing the work. Analytical methods can readily be devised for the determination of lead ethyl vapor, but its odor gives a very delicate and very simple test. If sufficient lead ethyl is present in the atmosphere of the laboratory in which your friend is working, so that it can be readily smelled, we would say that there is entirely too much, and that the technique or method of operating should be changed at once.

Very truly yours,

W. S. Calcott

DIRECTOR.

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