

June 19, 1959

Mr. Charles P. Haber
Head, Chemistry Division
U.S. Naval Ordnance Laboratory
Corona, California

Reference 44:CPH:ah
24 April 1959

Dear Mr. Haber:

I beg to apologize for my delay in replying to your letter directed to the Industrial Hygiene Section of Ethyl Corporation received by them on April 28, and passed along to me. Several recent absences from my office have made it impossible for me to attend to my correspondence.

Since the experimental work on which the activities of Ethyl Corporation in industrial hygiene were based, has been a responsibility of this Laboratory for many years, and since, until recently, I was the Medical Director of Ethyl Corporation, with full responsibility for the techniques of industrial medicine and hygiene in Ethyl Corporation, it may not surprise you that your letter came to me. (The somewhat unusual situation in which the head of a department in a medical school was also the medical director of an industrial organization, came about many years ago, when Ethyl Corporation was organized by reason of the fact that I had carried out most of the experimental and clinical work on tetraethyl lead and was, at that time, about the only physician in the country who knew anything about the problem.)

I, and my associates as well, will be glad to give you any information on the chemical aspects of industrial hygiene in connection with the manufacture, handling and use of the metallic-organic compounds with which we are familiar. Since, however, the bulk of the information and technique is considerable, and since much of this information exists in the form of experience and "know how", not all of which has been put together in readily available form, I should think it might be profitable for you, and for such member or members of the staff of the Naval Ordnance Laboratory as may be familiar with the medical and toxicological aspects of your problem, to pay us a visit. We could better be of assistance to you if we were to understand your problem, and your group could certainly profit by some discussion that would go well beyond the published or recorded facts.

I mention the medical and toxicological (biochemical, physiological and pharmacological) aspects of the matter because of your reference to the "interpretation of urine analyses". This is both a clinical

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and a physiological problem, as well as an analytical one. The information cannot be conveyed intelligently, or translated into the terms of the necessary measures of medical control, except to a physician, either directly or indirectly.

We have had little direct experience with the organic compounds of mercury, and although this problem, or series of problems, is somewhat related to those arising out of the lead alkyls, it had, I think some significant differences, both qualitative and quantitative. We are familiar with many of the problems associated with the handling of metallic mercury and certain of the inorganic and organic salts of mercury. Here again, however, the measures of industrial hygiene derive from medicine as well as chemistry.

We shall, of course, be glad to supply you with any of the printed information on any of your problems, whether or not it is published. As I indicated above, however, it is my opinion that the procedures of sampling and analysis which might best be employed in your laboratories could best be decided in terms of a discussion either here or in your Laboratory. Perhaps one of the members of our technical staff could look at the problem with you there, although it seems likely that a visit on the part of your people to this Laboratory might serve your purposes. I shall discuss this with Mr. Cholak, who is the head of the Division of Industrial Hygiene Technology in this Laboratory. I doubt that we have at hand printed material or publications that will cover the ground in which you are interested, but I shall send to you, under separate cover, such material as both of us may consider useful to you.

Cordially yours,

Robert A. Kehoe, M.D.

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