



GENERAL OFFICES • 2501 HUDSON ROAD • ST. PAUL 19, MINNESOTA • TEL: 733-1110  
MEDICAL DEPARTMENT—INDUSTRIAL HYGIENE • CENTRAL RESEARCH DEPARTMENT

PLEASE REPLY TO: 2301 HUDSON ROAD • ST. PAUL 19, MINNESOTA

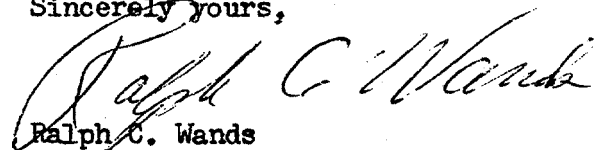
October 14, 1963

Robert A. Kehoe, M.D.  
The Kettering Laboratory  
College of Medicine  
Eden Avenue  
Cincinnati 19, Ohio

Dear Dr. Kehoe:

Thank you very much for your letter of October 9 with your comments on the possible toxicities of tetraphenyl lead and triphenyl lead. We will watch these compounds very carefully as our research and product development program continues. In view of the difference between the percutaneous absorption of tetramethyl lead and tetraethyl lead, it would certainly be interesting to evaluate our two compounds in this regard. We may be in a position to do this before long in which case we will certainly keep in touch with you. We are also going to talk with our analytical people regarding possible modifications of existing procedures. If we have any worthwhile ideas or data, we shall be glad to pass them along to you and Mr. Cholak.

Sincerely yours,

  
Ralph C. Wands  
Industrial Hygienist

RCW:amn

*Robert A. Kehoe | Mr. Wands as no x-ray at 3 M.*

KE 0007537

N 7941

October 9, 1963

Mr. Ralph C. Wands  
Industrial Hygienist  
3 M Company  
2501 Hudson Road  
St. Paul 19, Minnesota

Dear Mr. Wands:

There is very little information, I believe, on the specific toxic characteristics of tetraphenyl lead and triphenyl lead. One can anticipate much that is reasonably certain to be true, but no certain answers can be obtained without some real investigation. The latter should be done, by all means, if these compounds are to have any great use, and the nature of the practical problem that will arise, will depend, of course, on the use (or uses) to which these compounds are to be put.

As an example of one type of information that should be acquired, it may be supposed that tetraphenyl lead will be absorbed fairly readily through the skin. This is by no means certain, however, and one should not have to deal in inferences on such a matter.

I have not looked (at this time) to find out what is in the literature on these compounds, but I've had a weather eye out (or rather Mrs. Campbell's crew have) for articles on the analogues of tetraethyllead and triethyl lead compounds. As an example of an oddity, however, which is unpredictable, tetramethyllead, differing from tetraethyllead, is but poorly absorbed through the skin. The comparative behavior and the relative toxicity of these compounds are therefore of real importance in industrial hygiene.

I shall discuss the procedures for the analyses of the air for these compounds with Cholak. I should suppose, however, that with some slight adaptation, the methods used for tetraethyllead and triethyllead will serve. The problem here, however, may well be the degree of stability of these compounds in the presence of such chemicals as chlorine, bromine and iodine, for the rapid decomposition of their ethyl analogues under such conditions, is the most important feature of the sampling and analysis of the air. This may be a very simple matter, but it will have to be examined.

Sincerely yours,

RAK:vr

---

Robert A. Kehoe, M.D.

KE 0007538

N 7941.01