

June 2, 1960

R. E. Wehr, M. D.
Acting Health Commissioner
City of Cincinnati
Board of Health
City Hall
Cincinnati 2, Ohio

Dear Gene:

The variability of the compounds of lead, from the aspect of their absorbability, has long been a subject of speculation if not controversy. This is a valid consideration in relation to absorption through the skin, but it is of much less importance in relation to absorption from the lung or from the alimentary tract. In the latter situation, it is to be remembered that, (1) the absorption of any lead compound is poor and that, even under the best of conditions, only 8 to 12 percent of that ingested is likely to be absorbed; (2) that all compounds of lead have some degree of solubility, and that there is a long time (18 to 48 hours) between swallowing a substance and evacuating it from the alimentary tract; and (3) that, therefore, there is less difference than might be expected between different lead compounds with respect to their absorption from the alimentary tract. Accordingly, it is impossible to give any acceptable statement of the facts concerning the relative degrees of danger associated with the ingestion of various lead compounds. One might suppose that the chromate is less dangerous than the oxide, and that the oxide is less dangerous than the carbonate. The only thing I am prepared to say with reasonable certainty is that the sulfide and the silicate are much less dangerous than certain other compounds - for example the oxide - when inhaled. This, of course, has nothing to do with the danger from ingestion, for the sulfide is readily soluble in dilute hydrochloric acid, and, therefore, may readily be absorbed from the alimentary tract.

The facts in these matters, as you see, are obscure. We, here, are attempting at present to determine some of them in particular relation to lead suspended in the air. It is not safe to make any assumptions along the lines of your question, and I believe we have no choice, at present, but to limit the lead content of the paint (without regard to compound). I suggest that you should not allow anyone "to lead you down the garden path," with these considerations. And, with all due respect to Messrs. Foy and Gobel, who are fine gentlemen and are not, themselves, responsible for the dearth of information on these matters,

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let me point out that although the paint manufacturers and distributors have had a long time to learn something about these problems they have not undertaken to do so. They can have very little basis for a grievance if they find themselves at a disadvantage.

Sincerely yours,

Robert A. Kehoe, M. D.

RAK: ss

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City of Cincinnati

CARL A. WILZBACH, M.D.
HEALTH COMMISSIONER

OFFICE OF
BOARD OF HEALTH
CITY HALL
CINCINNATI 2, OHIO

May 18, 1960

S. A. SCHMID, D.D.S.
PRESIDENT
MRS. EDWARD KUHN
VICE PRESIDENT
CLARE R. RITTERSHOFER, M.D.
MR. TOM T. OYLER
PAUL S. HOUGH, M.D.

Robert Kehoe, M.D.
Director
Kettering Laboratory
Eden and Bethesda
Cincinnati 29, Ohio

Dear Doctor Kehoe:

We met with Mr. Edward Foy and Mr. Gobel last Thursday, and several interesting facets of lead and the paint industry were brought up and discussed. Some of these things are not very clear to me or to any of the committee.

For example, we wonder if there are any lead salts that are not absorbed by the body. It was stated that paint could be perfectly lead-free and that when pigments were added to it it would bring about some lead in the paint depending upon the concentration of lead and lead salts in the pigment, specifically, the question of lead chromate, which as you know produces green color. We wondered if lead chromate was as dangerous as lead carbonate or lead oxide.

We would like to have some guidance in this particular matter. I hope that you will be good enough to tell us if there are any lead salts such as used in pigments considerably over one per cent that could be considered safe for use.

Very truly yours,

R. E. Wehr, M.D.
R. E. Wehr, M.D.
Acting Health Commissioner

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