

July 27, 1971

Mr. B. W. Merwin, Chairman  
The United States Potters Association  
P.O. Box 63  
East Liverpool, Ohio 43920

Dear Mr. Merwin:

Thanks very much for writing to me about the deliberations of your Committee concerning the level of distinction between the acceptable and the non-acceptable content of lead leached out of pottery by the available tests. I should like to clarify the basis of my thinking on this matter and then undertake to express my views as to what the Potter's Association should strive for in its own interest. I am not preaching, but rather stating a principle.

The problem of doing what is best for the long-term interest of Potters in the United States in this matter is bound up in the attitude of governmental agencies, insofar as they speak for the safety of the people of their country. This, in my view, is a responsibility of the industry. The governmental agency concerned (F.D.A.) is, truly enough, at the moment, the authority in the matter, but considering the trends in this Government, I doubt that you can trust it entirely to give wise decisions. The standard which was set on apples and small fruit during the period when lead arsenate was in vogue, is, I think, a case in point. The investigation made in the Winache Washington orchards, was not altogether satisfactory, in my opinion, and the decision arrived at on the tolerance, was, I think, unwise, even though it related only to the proportion of such fruit in the national diet. If such a standard were applied to foods, in general, a portion of our population would be ingesting the average amount of 7 milligrams of lead per day - a highly dangerous quantity. I don't think any responsible agency dares to regard the "average" use of fruit in the diet of individuals as corresponding to the "national average" consumption. I regarded this at the time to be a very unwise decision, and I kept still about it only because the use of lead arsenate was beginning to lessen greatly because of the availability of the organic phosphorus for use in controlling the pests which affected the production of the orchards.

With this view of this matter, I was appalled to learn that this same standard was being applied to the issue of lead in relation to tableware. The basic problem of testing the tableware is different, of course, and the potentialities for affecting the intake of lead by people generally is also very different, but to make a mistake of this type in an official agency, and then to follow it up with the acceptance of a false standard is the height of foolishness.

My point is that your industry is in a potentially dangerous situation, when it bases its security on the opinions and decisions of a government agency which is capable of exercising bad judgment. The problem of the health of the nation, in relation to your products is your problem - that is, the problem of an industry which has only itself to blame if it gets into trouble through lack of proper information with which to guide its performance. This sounds a bit like arrogance and the wisdom of the

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"burning bush," with its message from God, but I think it fair to say that most of the industrial organizations in the United States are in that same situation. They must know how to handle their own affairs. This is the essence of "free enterprise."

In my view, you people should establish within your own organization a level of tolerance of your own. Naturally, it will have to be at least as good as that employed by F.D.A., but it should not be as much as they can be induced to permit, but should be as low as possible, with due regard to what can reasonably be accomplished - unlimited by what will occur through innovations (which may have to be abandoned), but rather by what can be achieved through proper technical efforts to avoid the introduction of lead into American food. You will have seen what apprehension has developed on the use of lead in gasoline. This same hysterical action can be applied to any other source of lead in the human environment, provided the issue is raised by uninformed persons of good will, or of rabble rousers. You must prepare for this kind of action, by honestly protecting the public in every way you find possible.

Incidentally, the test adopted by F.D.A. is an effort on their part to increase the severity of the testing procedure so as, more nearly, to determine what may happen when the articles to be tested are put into common use. You may conclude that this is not the best way to learn the facts, but there it is, ostensibly to determine the degree of public hazard. Their word in this matter is law, by which your people are bound. The question of the severity of the test is the question as to what happens, at worst, in ordinary life. It becomes, therefore, not merely a test, but a measure of public danger.

Let me repeat, therefore, that in my view, your Committee should adopt an internal regulation in this matter, which is as severe as the technical knowledge of your art will permit, and, within its own circle, it should hue to that mark with complete rigidity. This, I think, in the present state of our society, as well as in matters of law and equity, is by far the wisest policy. Your people know what can be done, and all that is likely to be done, by manufacturers in this field better than anyone else, and you should, I think, adopt the safest course that is feasible to achieve, for the sake of the welfare of your industry, and for the acceptance of your own responsibility.

Sincerely yours,

Robert A. Kehoe, M.D.  
Professor Emeritus of  
Occupational Medicine

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P.S. Please consider that my seemingly evangelical attitude here is not that of a "do gooder," precisely, but rather that of a person who undertakes in advance, to meet the accuser in an official hearing, or in a court of law.

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# THE UNITED STATES POTTERS ASSOCIATION

P. O. Box 63

Telephone: 386-4225

EAST LIVERPOOL, OHIO - 43920

## EXECUTIVE COMMITTEE

J. T. Hall  
Chairman

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July 23, 1971

Dr. Robert A. Kehoe  
University of Cincinnati  
Kettering Laboratory  
College of Medicine  
Eden & Bethesda Avenues  
Cincinnati, Ohio 45219

Dear Dr. Kehoe:

Jerry Gola of Ilarco has sent me a copy of your letter of June 7, 1971, concerning the 7 ppm maximum for lead release from glazes. Your letter was discussed at a Research Committee meeting on July 8, 1971 and the Committee concurs with your opinion, when ASTM C-555 standard method is used. However, when the FDA standard method for leaching is used, we feel the 7 ppm is somewhat realistic.

Comparative tests on the two methods, using the same glaze, shows a lead release 2.5 to 3.0 times the lead release by the FDA method compared to the ASTM, C-555 method.

You will note that our surveillance program specifies a 6 ppm limit for unqualified approval, with a gray zone between 6 ppm and 7 ppm. Consequently, when using the FDA method we are not too far off the 2 ppm limit you mentioned.

The glazes of all members of our surveillance program are well below 4 ppm, with one or two exceptions, when checked by the FDA method so we feel we are on fairly safe ground.

Overglaze decal is the area we are most concerned with at the present time. Until a few months ago (Enoch Wedgewood ware in Baltimore, Maryland) all lead intoxication cases mentioned in the news media were attributed to glazes. As a consequence, very little work was accomplished on overglaze decals. Now, quite extensive work is being done on the formulation of fluxes that will give colors of low lead release. Some headway is being made already and the Research Committee feels sure that this problem will be overcome in a relatively short time. One color company has already come up with a flux formulation for decals that gives approximately 2 ppm lead release when checked by the FDA method. They have matched a few colors using this flux and are attempting to widen the field. Of course, this only partially solves the problem as this flux can not be used with all colors. However, it is an indication that a solution to the whole problem will be

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Since the FDA changed the leaching procedure we feel that we were lucky that they agreed to the 7 ppm release when we initially contacted them. The 7 ppm figure was based on a report that the Department of Agriculture required lead from sprays to be removed from apples so that the remaining lead would not be more than this figure based on the weight of the apple.

I trust the above has presented our thinking at this time and we will welcome any comments you wish to make.

Respectfully yours,

Research Committee

*B. W. Marwin*

B. W. Marwin, Chairman

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