

February 8, 1961

James H. Kizziar, Major, U.S.A.F.
1236 Kevin Drive
Fairborn, Ohio

Dear Major Kizziar:

Your letter quotes information on Laurel Cerama Stone pottery. A copy of our release is attached.

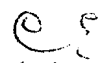
We believe that only acid foods or foods left on the dishes for storage will result in the release of excessive amounts of lead in the food.

I suggest -

- 1) If the pottery has not faded at all inside the vessels as compared to outside, you have probably not leached significant amounts of lead off the dishes. (Used for immediate food service of non-acid foods, the dishes would not be expected to dissolve much lead.)
- 2) You might consult with Dr. Robert A. Kehoe, Director of the Kettering Laboratory of the University of Cincinnati - a world renowned expert who is well aware of the problems involved.

Very truly yours,

Howard W. Mitchell, M.D., Chief
Bureau of Occupational Health


Christine Minert, M.D.
Medical Officer

CE:rh

attachment

cc: Dr. Kehoe ✓

KE 0008379

N9697

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH
2151 BERKELEY WAY
BERKELEY 4, CALIFORNIA

October 31, 1960

MEMORANDUM

TO: ALL LOCAL HEALTH OFFICERS

FROM: Malcolm H. Merrill, M.D., Director
State of California Department of
Public Health

SUBJECT: Request to stop sale of Laurel Company
"Cerama Stone" colored dinnerware*

It has come to the attention of the California Department of Public Health that the yellow "Cerama Stone" dinnerware (dishes, bowls, etc.) of the Laurel Pottery Manufacturing Company, operated by Laurel Potteries of California, Incorporated, has caused two well-authenticated cases of adult lead intoxication due to the routine use of this dinnerware. Tests indicate that these dishes are a health hazard in use only when acid or alkaline foods are repeatedly eaten from them or when such foods are left in the dishes for storage and then consumed. Tests of the Laurel "Cerama Stone" (the trade name applied to their dull finish glaze product) dinnerware in our laboratory further show that all colors (except white) do, in fact, give up lead to acid liquids (e.g., vinegar) and foods (e.g., applesauce) in quantities which would be capable of causing lead poisoning.

Although the Laurel Company has stopped manufacture and has invited retail outlets to return all colored Laurel "Cerama Stone" ware (C.O.D. "earthenware", \$25.00, CWT release valuation) only relatively few retail outlets have to date stopped sale and returned the dishes. Laurel Company makes other dish ware, but only the "Cerama Stone" type (the biggest seller) is involved in this problem.

We are therefore advising you that the colored laurel Company "Cerama Stone" ware constitutes a hazard to public health and under the general powers of the Director of Public Health, we ask that you make every effort to have the dishes presently in stores in your community removed from sale. Prompt action is requested since the manufacturer is now prepared to substitute dishes claimed to be safe in some colors so that delay in removing present stocks might lead to difficulty in identifying unsafe dishes. (These new glazes have not been tested in our laboratory.) To date, all colored Laurel "Cerama Stone" dishes available for retail sale or for exchange for trading stamps should be considered potentially hazardous. We understand that in any jurisdiction one or two better stores and possibly trading stamp outlets may carry this pottery. So far, no persons in California have been reported to have been poisoned by use of these dishes.

A public release of this information is planned concurrently with this notice.

N9697.01

*Many local health departments received this notice on Friday, October 28.

KE 0008330

October 31, 1960

There is a relatively simple method of testing the glaze on dishes for lead. In 1939 the National Bureau of Standards published a "tentative test for the solubility of lead in glazes" which has been commonly used in the industry to insure the safety of dish ware. Currently, the American Society of Testing Materials is considering the endorsement of essentially the same easy qualitative test as a standard. A copy of this proposed tentative test is attached for your information. In this test the liquid in a glaze subjected to this test has shown no black precipitate with hydrogen sulfide if the dissolved lead amounted to less than four parts per million. This absence of black precipitate is considered to indicate a satisfactory glaze. Black precipitation may occur from the presence of other metals, thereby requiring further analysis. However, in our laboratory all colors of Laurel "Cerama Stone" dinnerware (except white) have shown lead in excess of four parts per million.

We do not know of any other dinnerware presenting this hazard although such a situation may exist, as it did some years ago with dishes of foreign manufacture.

We would appreciate being informed of your action in this matter and of the names of all the places from which this colored Laurel "Cerama Stone" pottery is, or will be, removed.

Malcolm H. Merrill, M.D.
Director of Public Health

Attachment

KE 0008381

TENTATIVE METHOD OF TEST FOR

SOLUBILITY OF LEAD FROM

GLAZE SURFACES

Scope:

This method of test covers the procedure for determining the lead extraction from glaze surfaces on exposure to organic acids, more specifically acetic acid.

Significance of Test:

This is a simple procedure for plant control use. The test may give too high values for "lead" because other metals, such as copper, bismuth, cadmium, tin, arsenic, antimony, or mercury which may also be present, are precipitated.

The "dithizone method" ^{1/} may be used as a more specific test for lead. The present test though, designed to simulate conditions in service, should be of use for plant control and development work.

Test Specimens:

Various glazed shapes may be used, e.g., fruit dishes, bowls, cups, etc. For more critical comparison a similar shape should be used so that the total surface contacted by the reagent during the test is nearly the same. A standard size cup is recommended.

Standard Solutions:

The standard solutions should be prepared by adding the correct amounts of chemically pure lead nitrate to a 5% acetic acid solution^{2/}

In many instances, it will be found to be more convenient to use white distilled vinegar which contains about 5% acetic acid. Where this is done the white distilled vinegar shall be used also in preparing the standard solutions.

Standards shall be prepared which contain 1/2, 1, 2, 4, and 8 parts of lead per million parts of reagent. To prepare the standards, dissolve 0.0128 grams of C. P. $Pb(NO_3)_2$ in 500 cc of reagent and dilute to exactly 1 liter. This solution will contain 8 ppm of Pb. 500 cc of this shall be saved as a standard solution of this concentration. The remaining 500 cc solution shall be diluted to 1 liter which produces a concentration of 4 ppm of lead. The dilution process shall be continued in preparing the standard solutions containing 2, 1, and 1/2 ppm Pb in solution.

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The standard solutions shall be subjected to the H_2S precipitation described under procedure. The color of the precipitated standard in light so it is necessary to prepare freshly precipitated standard daily before each series of tests. The stability of these samples be improved by the addition of 1/4% gelatin to the standard solution.

If the reagent after the test contains higher amounts of lead, all portions shall be used in the colorimetric comparisons. Higher concentrations of lead make comparison difficult or impossible.

Procedure:

A. 150 cc of the boiling reagent (5% acetic acid solution or white distilled vinegar) shall be poured into the standard cup or shape specimen and allowed to cool for 1/2 hours. The reagent then be placed in a Nessler tube. A brisk evolution of hydrogen sulfide gas shall be passed through the reagent for 3 minutes. The coloration of the reagent shall then be compared with the standard solution in Nessler tubes which have been subjected to the same hydrogen sulfide treatment. A suitable colorimetric or turbidity meter will greatly aid in making comparisons.

The colorimetric comparisons shall be made as soon as possible after the precipitation of the test reagent and standard solution.

B. An alternate procedure involves the exposure of the test specimen to the test reagent introduced and maintained at room temperature for a period of 24 hours.

Reports:

The report shall state the lead in ppm contained in the test reagent. It shall further indicate the specific reagent² used, the specimen shape, and which of the test conditions (A) or (B) was employed.

1/ Scott's Standard Methods of Chemical Analysis, N. H. Furman 5th Edition, Vol. I. p 521, D. Van Nostrand Co., Inc. 1939

2/ 5% acetic acid solution or white, distilled vinegar. It may be desirable in some cases to use other organic acids, e.g. lactic acid. The concentration of the organic acid used shall be

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