

Test Kit for Lead in Ceramic wares

Self Food Quality Care

Food contaminated with lead can cause hazard to health especially from the ceramic wares. Therefore, the Department of Medical Sciences has developed kit for consumers to test leached lead from the ceramic wares.

Health Impact

Lead can destroy the neuro system and brain, causing amnesia. In children, even the small amount of lead can cause slow development, low IQ, and decrease in learning capability.

Law and Regulations

According to the Ministry of Public Health's Act No.92(B.E.2528), Lead are prohibited to leached out from the ceramic food-contact articles not more than 2.5- 7.0 milligrams per litre according to types and volume of food-contact articles.

Target Sample

Ceramic food-contact articles.

Effectiveness of Test Kit

This test kit can test the leached lead that come out from the ceramic food-contact article outside the laboratory, which helps the effectiveness of protecting the consumers.

Number of Tests/ Kit
20 Tests

Sensitivity of Test Kits
Detection limit of
leachable lead is 0.05 mg/litre.



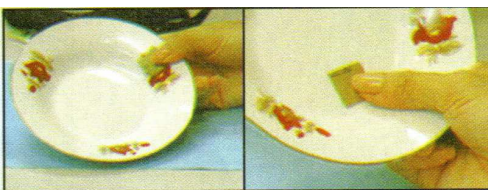
Test Kit Tool

Reagent 1	1 Bottle
Reagent 2	1 Bottle
Test Paper	1 Sachet
Sand Paper	1 Sachet
Toothpick	1 Sachet
Test Kit Handbook	1 Sheet

Procedure



1. Open the bottles of Reagent 1 and Reagent 2, pour the drinking water until reach the mark. Close the cap, vigorously shake until the reagents dissolve becoming solution 1 and solution



2. Use the sand paper abrade small area of food contact surface of ceramic wares. Use the sand paper one piece for one area. The first area is the printed area.

The second area is the background of item. Press firmly the sand paper with thumb and rub until sand paper is covered with abraded surface dust. (wash hands before rubbing another samples)



3. Drop 2 drops of the solution 1 onto 2 sheets of test paper.



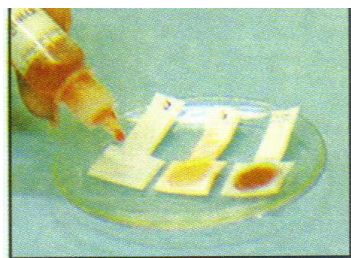
4. Place the test paper onto the abraded area of the ceramic wares firmly.



5. Drop 2 drops of solution 1 and press the test paper with toothpick. Gently remove the bubbles from the test paper. Leave for 5 minutes.



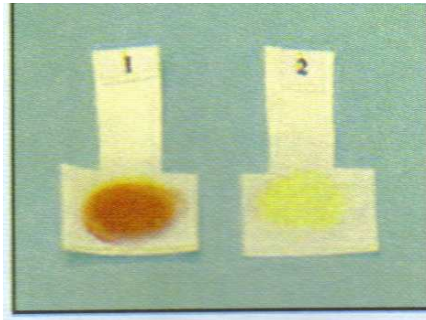
6. Remove the test papers and place them on the glass or the tile. Leave for 2 minutes until the test papers are nearly to dried.



7. Drop 2 drops of the solution 2 on both of test papers and LQC sheet then read the result.

Remark : Drop the Solution 2 on LQC sheet is to test the quality of Solution 2, the quality solution will show the magenta on the sheet.

Evaluation



- If the color of test paper changes to pink, it is detected lead in the sample.
- If the test paper is yellow or fade away, it is not detected lead in the sample.

After Use the Test Kit

- The solution can be used only 1 day, the rest of the solution must be disposed.
- The used sand paper cannot be reused because the contamination of lead, must be disposed in the trashbin

Precaution

- Solution 1 is acid, if contact with hands or any parts of the body, wash immediately with soaps and water.
- Keep out of reach of children
- Change the sand paper and toothpick every time when testing each spot

Keeping/ Age

- Keeping at room temperature / 6 months.

Solution after finding leads

Deliver the positive test sample to the laboratory to further verify and testing to check the amount of the leachable leads.

