

Evaluation of Consumer Products for Lead

Consumers should exercise caution in relying on lead test kits to evaluate consumer products for potential lead hazards.* In some circumstances, interference from other compounds such as iron, zinc or tin, or from color or dirt transfer from the product to the test kit can lead to a false positive result where no lead is present. Additionally, in other circumstances, such as for some children's metal jewelry or other products, the presence of a surface coating over the lead may result in a negative test result even where a lead hazard is present. Furthermore, the sensitivity of the kits can vary and sometimes may lead to a positive result for items where a small quantity of lead may be present but may not pose a significant risk of injury or illness. All of these situations make it extremely difficult for a consumer to rely on the results of an individual test on a product and to determine the proper course of action to take.

Laboratory testing by a qualified laboratory using proper techniques and interpretation of the results by qualified toxicologists is the only way to accurately assess the potential risk posed by a consumer product that may contain lead. However, other techniques such as x-ray fluorescence (XRF) screening by a professional inspector can be a useful way to screen for the presence or absence of lead in products, particularly for surface level lead. XRF detectors have limited depth of penetration so, for certain applications such as children's metal jewelry, it is possible for the surface coating to mask the presence of potentially hazardous leaded base metal underneath.

**These comments are those of the CPSC staff, have not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.*