

Testing* for Lead in Toys

Toys:

Even today some children's toys and game pieces are being made with lead containing materials. It has long been known that lead is toxic and can cause serious health problems especially in children. Excessive amounts of lead in the bloodstream can cause neurological damage, loss of I.Q. points and even brain damage.

Some toys contain wood, plastic and metal parts each of which may be contaminated with lead. There may be a lead core coated with a thin coat of another material (usually paint). In addition toys are decorated with brightly colored lead containing enamel and pigments. Parts of the toys may be attached to the main body of the toy with lead containing solder. Each of these areas should be tested for lead contamination. If LeadCheck® Swabs turn pink on any of these areas the toy is not safe to use. Touching lead containing toys can allow lead to accumulate on children's hands. More lead enters the blood stream when children put their hands, or sometimes the toy itself, in their mouths.

Just by looking at a toy, it is not possible to tell whether it is lead containing. However, the toy can be tested with LeadCheck® Swabs. A LeadCheck® Swabs kit provides a simple, inexpensive, easy to use test for the presence of lead.

Method I: For Painted Wood Toys and Vinyl



Some toys are brightly colored and the pigments and enamels used to decorate the toy may contain lead. To test for this, use the following protocol.

1. Be sure the surface is clean. Prepare the surface by making a small cut into the paint or roughing up a vinyl surface.
2. Then activate the Swab according to the instructions supplied with the kit.
3. Immediately rub the activated swab over the exposed inner area while squeezing gently to keep the LeadCheck® liquid at the Swab tip.
4. Rub the swab tip vigorously over the test area for about 30 to 60 seconds.
5. Examine the Swab tip and or the surface of the test piece for any pink color. Put the swab aside and look at the swab tip in about an hour.

Method II: For Metal Toys, Parts of Toys and Surfaces



Many toys have a lead core and a thin layer of another material on the surface. To detect the lead it is necessary to cut through the outer layer at an inconspicuous place so that the leaded inner layer is available. Be sure to test metal and solder connections with the same method.

1. Prepare the surface as described above.
2. Then activate the Swab according to the instructions supplied with the kit.
3. Immediately rub the activated swab over the exposed inner area while squeezing gently to keep the LeadCheck® liquid at the Swab tip.
4. Rub the swab tip vigorously over the test area for about 30 to 60 seconds.
5. Examine the Swab tip and or the surface of the test piece for any pink color. Put the swab aside and look at the swab tip and test surface in about an hour.

Interpretation of results:

1. If a pink color appears on the swab or the test piece lead is present. Color development may take as long as an hour. Any pink indicates the presence of lead. The intensity of the color indicates whether the level is high or low.
2. If no pink color appears on the swab or the test piece leachable lead has not been detected. Some imported toys are painted with a lead pigment that may require a longer development time. Look for color on the swab or the toy after one hour.

*LeadCheck® Swabs are a versatile and sensitive screening tool for the detection of lead on any surface. This applications note provides a suggested method to allow testing for a specific application. Additional information and help are available by calling 800-262-5323 or 508-651-7881.