



Testing* Brass Faucets and Fixtures¹

Background

Brass is a metal alloy primarily composed of copper, tin and varying amounts of lead. Antique brass may contain very high levels of lead, while brass manufactured in the United States after 1986 usually contains no more than 7-8% lead. In both instances, lead may leach from the brass.

Brass-containing faucets and submersible pumps

Brass is found in faucets and submersible well pumps. As the water sits in brass faucets, lead may leach into the water in excess of the EPA action level of 15ppb (parts per billion). This is especially true for the 12 million water wells that are equipped with brass-bearing submersible pumps. Recent studies have demonstrated that the lead level in well water standing in contact with brass for eight hours increased as much as 20 fold. Under these conditions the lead levels sometimes exceeded 50ppb! Although EPA regulations of 1986 limit lead in brass faucets to 8%, this regulation does not apply to submersible well pumps.

To determine if a faucet or submersible pump is leaching lead into water, use LeadCheck[®] Aqua II

Test Method

1. Allow the water to sit inside the faucet or well pump for at least overnight (18 hours).
2. Collect the first 130ml of water from the faucet directly into the glass bottle provided with the kit.
3. Continue with the test as described in the instructions for LeadCheck[®] Aqua II.
4. Examine the test strip for a pink to red line.

Interpretation of Results

1. If a pink to red color appears on the test strip, lead is present in the water at or above 15ppb. If lead is present in this first draw, it is likely that the lead is leaching from a brass component in the faucet. Run the water for a couple of minutes and then collect a second bottle of water to test. A negative test on this second sample confirms that the source of contamination is in the faucet. It can take up to four hours of running time to clear lead contamination originating from a brass component in a submersible pump.
2. If no pink line is observed on the test strip, your faucet does not have lead-containing brass components.

¹NOTE: To test brass metal directly, see Applications Note PB- 06: Testing Brass. If your house was built before 1986, make sure your pipes and solder joints are lead-free by testing them with LeadCheck[®] Swabs first.

*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.