

Case-In-Point

Advertorial

A meter that tests Lead in water, soil and paint

The science behind the eXact® LEADQuick™ Colorimeter uses lead in the water sample first solubilized to Pb+2 by the addition of a Nitric Acid reagent. A buffer is then added to make the solution alkali. The eXact® Strip Pb-3 is dipped for 20 seconds with gentle motion, which adds the porphyrin indicator and mixes the solution. After a one minute wait, which allows for the porphyrin and Pb+2 to form a colorimetric complex, the eXact® LEADQuick™ Colorimeter automatically zeros the total absorbance developed. The eXact® Strip Pb-4 is dipped into the cell sample for twenty seconds with gentle motion. This motion releases EDTA into the sample which then breaks up the colorimetric porphyrin-Pb2+ complex. After a one minute wait, the result is displayed in µg (µg/L) as Lead which is determined by an algorithm programmed in the meter. The higher the drop of the absorbance (abs) value, the higher the lead level present in the sample. The system can also be used for Mercury and Cadmium. For specifications of the eXact® LEADQuick™ Colorimeter see the chart.

The eXact® LEADQuick™ Colorimeter is fast, non-technical, and has expanded applications for soil and lead paint testing. Its principal applications include:

Water: On-site reliable testing of Lead in drinking water to confirm water contains less than USEPA MCL (Maximum Containment Level) 15 µg/L.



ONLY FOUR REAGENTS REQUIRED



Soil: On-site, reliable Lead screening of soil samples to confirm soil is below USEPA 400 and 1000 mg/kg levels.

Paint: On-site reliable Lead screening of paint samples to confirm lead in paint is below USEPA allowable 1.0 mg/cm2.

The eXact® LEADQuick™ Colorimeter is especially useful for:
Lead Water Testing: USEPA and Congress continue to classify lead as a substance hazardous to the public health, and especially detrimental to normal childhood development. Widespread use of this simple, but accurate, field test method will quickly and accurately determine public exposure to toxic lead.

Lead Paint Testing: Congressional regulation requires new rules for contractors performing work that disturbs any paint in homes, child care facilities, and schools built before 1978 must:

- Be EPA certified, and follow specific work practices to prevent lead contamination.
- Determine if Lead levels require compliance with these new rules.

This product has completed the ETV program for Lead determination in Paint; and results will be released soon.



eXact® LEADQuick™ Specifications

Menu	Tests for	Range	Resolution	+/- Accuracy	Limit*
PA1	Diluted Homogenized Paint Lead	.000 to 1.99	.001	.003 or 6%	—
PB2	Lead in Water (auto-zero)	1 - 500 µg/L	1 µg/L	3 µg/L or 6%	3 µg/L
HG3	Mercury in Water (auto-zero)	10 - 600 µg/L	1 µg/L	6 µg/L or 6%	10 µg/L
CD4	Cadmium in Water (auto-zero)	0.01 - 0.80 mg/L	.01 mg/L	.06 mg/L or 6%	.02 mg/L
PB2	Modified Test for Lead in Soil	18 - 3000 mg/kg 200 - 300,000	1 mg/kg 200	+ - 25% + - 40%	18 mg/kg 200 mg/kg
PB2	Lead extracted from Ceramic	1 - 500 µg/L	1 µg/L	3 µg/L or 6%	3 µg/L

*Limit is defined as the minimum reliable detection for that test. Any value below the limit should be considered inconclusive for that metal's presence.