



CLARK
Laboratories, LLC

A Division of Clark Testing Group

Industrial Hygiene Lab Metals Analysis



Clark Laboratories is accredited by the American Industrial Hygiene Association (AIHA) for the sample analysis of metals in:

- Air
- Paint (lead)
- Soil
- Dust

Samples are prepared and analyzed according to NIOSH and OSHA methodology. The following instrumentation is used to analyze the samples:

- Inductively Coupled Plasma Spectrometry (ICP)
- Graphite Furnace Atomic Absorption Spectrometry (GFAA)
- Flame Atomic Absorption Spectrometry (FLAA)

A few examples are as follows:

Beryllium can be prepared and analyzed using NIOSH 7102 or NIOSH 7300, depending on client requirements.

- NIOSH 7300
 - detection limit of 1.0 µg/sample
- NIOSH 7102
 - detection limit of 0.1 µg/sample

Beryllium withstands extreme heat, remains stable over a range of temperatures and functions as an excellent thermal conductor. These capabilities are ideal in many industrial materials, most notably by adding Beryllium to Nickel, Aluminum and Copper metals. Health effects of long-term exposure include lung and dermal disease.

Lead is analyzed using NIOSH 7300 for air samples and EPA 3050 for paint, soil, or dust samples. Lead is most commonly known for being a component in paint years ago for its corrosion-resisting properties. Lead is highly toxic, especially in children, as it will cause neurological disorders.

Arsenic is prepared and analyzed using NIOSH 7300; however for lower limits, NIOSH 7901 can be performed. Copper or lead smelting, wood treating and pesticide application commonly produce arsenic. Arsenic is very poisonous and is considered to be a carcinogen.

Multiple metals can be easily analyzed on a single air cassette. An example would be analysis of 13 different metals in welding fume collected while monitoring a welder for exposure to various toxic metals.

Sampling Media

Clark Labs can supply all of the media needed for your sampling requirements, including:

- MCE cassettes
- PVC cassettes
- Wipes
- Sample jars

For more information on these or any other IH laboratory services, please contact us by phone at 412-387-1001, by fax at 412-387-1025, or on the web at www.clarklabslc.com and click on IH Lab.