



# ALS Salt Lake City, UT

## Beryllium Analysis

### Industrial Hygiene

- TO-14, 15
- Beryllium
- Diesel Particulates
- Pesticides and Herbicides Scans
- TO-17
- Silica
- Methamphetamine
- GC/MS Screens
- Metals Panels
- Aldehydes and Amines
- Antineoplastic / Chemotherapy Drugs

### Environmental

- Perchlorate (6850)
- White Phosphorus (7580)
- NDMA
- Explosives/Nitroaromatics
- Vapor Intrusion
- Chemical Agent Breakdown Products by LC/MS
- SW-846 Methods
- EPA CLP
- DoD
- SEDD (Staged Electronic Data Deliverable)

### Microbiology/Mycology

- Non-Viable Fungal Spore Analysis
- Viable Fungal and Bacterial Analysis
- Microbial Identification
- Endotoxins/Mycotoxins
- Coliforms and E. coli 0157:H7

### Dietary Supplements

- Vitamin Analysis
- Pesticides Screens
- Minerals Analysis
- Heavy Metals

**RIGHT SOLUTIONS  
RIGHT PARTNER**

**Problem:** Beryllium (Be) is a naturally occurring metal that is extremely lightweight, hard, non-magnetic, and is a good conductor of heat and electricity. Its characteristics make it suitable for many applications in the aerospace, nuclear, electronics, ceramics, and manufacturing industries. A significant disadvantage is the toxicity of its dust, fumes, and soluble salts. Lung damage is the primary threat from inhalation exposures to beryllium-contaminated air. Adverse health effects range from beryllium sensitization (allergic reactions) to chronic beryllium disease (CBD) and lung cancers.

**Solution:** ALS Environmental offers low-level analysis of beryllium in Industrial Hygiene and Environmental matrices, including analysis for the more insoluble forms of beryllium (i.e. "high-fired" beryllium oxide).

ALS has processed well over 100,000 beryllium samples for government and industrial clients over the past several years, routinely providing 24 hour TAT for air and wipe samples. ALS is staffed and equipped to offer high volume sample throughput on a rush basis to meet any and all project needs.

- EPA regulations stipulate that beryllium emissions from a stationary source may not exceed 10 grams in a 24-hour period and that ambient air concentrations averaged over a 30 day period must be less than 0.01 micrograms per cubic meter.
- NIOSH recommends a maximum occupational exposure of 0.5 micrograms per cubic meter over a 10-hour time-weighted average (TWA).
- Current OSHA regulations specify a beryllium exposure limit of 2 micrograms per cubic meter over an 8-hour TWA.
- The Department of Energy has established an action limit for beryllium at 0.2 micrograms per cubic meter.

ALS Environmental Detection Limits:

Air Filters and Swipes	0.007 µg/sample by ICP
Water	0.3 µg/L by ICP 0.07 µg/L by ICP-MS
Soil	0.02 µg/g by ICP 0.305µg/g by ICP-MS

ALS Salt Lake City · 960 West LeVoy Drive · Salt Lake City, UT 84123  
Toll Free: +1 800 356 9135 · Phone: +1 801 266 7700 · Fax: +1 801 268 9992



### ALS Environmental Locations Across North America

Canada: Burlington · Calgary · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay  
Vancouver · Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Salt Lake City Mexico: Monterrey