



# Hexavalent Chromium

**Introduction:** Hexavalent Chromium is encountered in welding of stainless steel, use of refractory bricks, battery production, pigments, catalysts, electroplating, textiles, tanning, wood preserving and industrial water treatment. Toxicity of hexachrom in dust, fumes and mists is a health concern. WHO, DHHS, USEPA, and IARC have determined that Hexavalent Chromium causes lung cancer in humans. In addition, mucous membranes and skin ulcers and perforation of the nasal septum occur.

**Problem:** There is a need for analytical services to support Hexavalent Chromium workplace exposure evaluation.

**Solution:** ALS offers low-level analysis of Hexavalent Chromium in Industrial Hygiene and Environmental matrices using methods NIOSH 7605, OSHA ID 215, EPA 7196, EPA 7199 and more.

The Occupational Health and Safety Administration published their final standard on hexachrom in February 2006 setting the PEL to 5µg/m3 with an action level of 2.5µg/m3 over 8 hours.

ALS was involved with developing NIOSH method 7605 and is proficient at providing hexachrom analysis

- ALS performs hexachrom analysis using OSHA ID 215
- NIOSH 7605 and EPA 7196 can also be requested
- ALS is a premier analytical method research laboratory and was selected by NIOSH to perform and evaluate NIOSH 7605. Our research led to the publication of this method.

Cincinnati, OH: 4388 Glendale-Milford Road • Cincinnati, OH 45242 • +1 513 733 5336  
 Middletown, PA: 34 Dogwood Lane • Middletown, PA 17057 • +1 717 944 5541  
 Salt Lake City, UT: 960 West LeVoy Drive • Salt Lake City, UT 84123 • +1 801 266 7700  
 Simi Valley, CA: 2655 Park Center Drive • Simi Valley, CA 93065 • +1 805 526 7161  
 Rochester, NY: 1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 • +1 585 288 5380

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- Experienced staff with expertise
- Available after-hours and weekends

## VALUE

- Instant access to data with Webtrieve™ and Webtrieve™ Mobile App
- Custom bottle kits with pre-printed labels and COCs

## RELIABILITY

- Technical experts that can answer your most difficult questions
- A real focus on quality and process control with a rigorous QA/QC program

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*ALS Rochester Hexavalent Chromium sample handling guide on reverse side...*





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Method	Instrument	Matrix	MDL	RL	Sample Handling Guide	Holding Time
Hexavalent Chromium			units	units	Field Filter/Field Preserve within 24 hours of collection	
			mg/L	mg/L		
7196A	Lachat	water	0.0013	0.01	none	24 hours
SM 3500B-Cr	Lachat	water	0.0013	0.01	none	24 hours
			mg/L	mg/L		
218.6-RL	Ion Chromatography	water	0.003	0.01	none	24 hours
218.6-RL	Ion Chromatography	water	0.003	10	9.3 - 9.7	28 days
			µg/L	µg/L		
218.6-LL	Ion Chromatography	water	0.01	0.02	none	24 hours
218.6-LL	Ion Chromatography	water	0.01	0.02	9.3 - 9.7	28 days
			µg/L	µg/L		
218.6-LL	Ion Chromatography	DW	0.01	0.02	none	24 hours
218.6-LL	Ion Chromatography	DW	0.01	0.02	9.0 - 9.5	5 days
			mg/L	mg/L		
7199	Ion Chromatography	water	0.003	0.01	none	24 hour
			mg/Kg	mg/Kg		
7196	Spectrophotometer	soil	1.04	4.0	none	28 days
			mg/Kg	mg/Kg		
7199	Ion Chromatography	soil	0.106	0.40	none	30 days to extract. 7 days to analysis.
			µg/Kg	µg/Kg		
218.7	Ion Chromatography	DW	0.01	0.03	pH > 8.0 chlorine < 0.1 mg/L	14 days
			µg	µg		
NIOSH 7605	Ion Chromatography	air	0.0054	0.025	none	28 days

\*Rochester Sample Handling Guide: Data valid for Rochester laboratory only.

