

IMPORTANT UPDATE!

Hexavalent Chromium Sampling Technical Bulletin

IDENTIFY THE TYPE OPERATION MONITORED

Describe the operation monitored (painting, welding/cutting, plating, de-painting, etc.) on the test request form. Certain sample types require special prep, especially those from painting, de-painting, and welding or hot operations.

SAMPLING MEDIA REQUIREMENTS

- **Chromium plating (sampling in acid environments)**
Sample using sodium hydroxide-treated quartz fiber filter cassettes (Analytics PN C-43) **OR** PVC filter cassettes [Analytics PN C-10 (un-weighed), or PNs C-11 and C-12 (pre-weighed)]. **PVC filter samples from acid-containing operations, such as plating, require extraction within 6 days of collection – see shipping requirements below.** Plating samples on C-43 cassettes are stable up to 2 weeks.
- **Other operations (i.e. sampling in welding/hot environments)**
Sample using PVC filter cassettes only (Analytics PNs C-10, C-11, or C-12; see descriptions above). Smaller 25mm PVC filter cassettes (Analytics PN C-41) may be used for easier sampling under a welder's helmet. **Samples collected in welding and hot metalworking areas should be collected on PVCs with quartz backup pads (PN C-53).** Hot environments cause the cassettes to expand and sample can collect around the PVC onto the backup pad. In these cases, the backup pads are analyzed along with the PVC filters. These samples should be extracted within 8 days of collection – see shipping requirements below.

SHIPPING REQUIREMENTS

Ship all samples by overnight carrier on the day of collection or the following day. **Note: Samples collected Friday, Saturday, or Sunday can ship the following Monday. Do not perform field extraction.**

AIR VOLUME REQUIREMENTS

- Reporting at the OSHA Action Level (2.5 ug CrVI / M3) requires sampling at least 10 Liters of air.
- Reporting down to 0.5 ug CrVI / M3 requires sampling at least 50 Liters or air.
- Samples are measured down to 0.025 micrograms CrVI per sample. Sensitivity for a specific air volume sampled can be calculated as follows:

$$\frac{0.025 \text{ micrograms CrVI}}{(\text{Liters of Air Sampled} / 1000)} = \text{micrograms CrVI per cubic meter air}$$

SAMPLE STABILITY DETERMINATION

The final report provides dates of sampling (if provided to Analytics) and analysis, enabling verification that hold times were met.

If you have questions on this topic please contact Andy Teague, CIH at 800-888-8061, x5226, or Trena Stooksberry at 800-888-8061, x5007.