

Hexavalent Chromium Sampling Technical Bulletin

IDENTIFY THE TYPE OPERATION MONITORED

Sample prep and sample hold times vary with the type of operation monitored. The test request form must describe the type of operation monitored, such as:

- Chromium compounds in an acid environment, such as plating
- Painting, de-painting, or pigment-related activity
- Metalworking, such as welding or cutting

SAMPLING MEDIA and SHIPPING REQUIREMENTS

- **Plating and other acid environments**
 - Ship overnight within 24 hours of collection. *Note: Samples collected Friday, Saturday, or Sunday can ship the following Monday.*
 - Hold time is 6 days from collection to laboratory extraction.
 - Sample using PVC filter cassette PN C-10 (un-weighed). Pre-weighed PVC filter cassettes PNs C-11 and C-12 may also be used.
- **Metalworking operations (welding, cutting, etc.)**
 - Ship overnight within 24 hours of collection. *Note: Samples collected Friday, Saturday, or Sunday can ship the following Monday.*
 - Hold time is 8 days from collection to laboratory extraction.
 - OSHA recommends sampling on PVC filters with quartz backup pads (PN C-53). Other acceptable samplers include:
 - 25mm PVC filter cassettes (Analytics PN C-41) may be used for easier sampling under a welder's helmet.
 - PVC filter cassettes PN C-10 (un-weighed) and pre-weighed PVC filter cassettes PNs C-11 and C-12.
- **Pigment-related operations (painting, de-painting, etc.)**
 - Routine shipping is acceptable.
 - OSHA has established no hold time requirements for these samples.
 - Sample using PVC filter cassette PN C-10 (un-weighed). Pre-weighed PVC filter cassettes PNs C-11 and C-12 may also be used.

AIR VOLUME and SAMPLING RATE REQUIREMENTS

- Collect samples at a flow rate of 1 to 2 Liters per minute.
- Air volume sampled must be >10 Liters to report below the 2.5 ug CrVI/M3 Action Level.
- Air volume sampled must be >50 Liters to report below 0.5 ug CrVI/M3.
- Testing sensitivity for a specific air volume sampled can be calculated as follows:

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

If you have questions on this topic please contact Analytics at 800-888-8061.