Workers in many different occupations are exposed to hexavalent chromium (Chromium (VI)), increasing the risk of developing serious adverse health effects. Occupational exposures occur mainly among workers who handle pigments containing dry chromate and spray paints and coatings containing chromate; operate chrome plating baths; and weld or cut metals containing chromium, such as stainless steel. Stainless steel welding involves the greatest exposure to Chromium (VI).

<table>
<thead>
<tr>
<th>Sources of hexavalent chromium</th>
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<tbody>
<tr>
<td><strong>Uses</strong></td>
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<tr>
<td>Pigments for paints, inks, plastics</td>
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<tr>
<td>Anti-corrosion coatings</td>
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<tr>
<td>Stainless steel</td>
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<td>Textile dyes</td>
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<tr>
<td>Wood preservatives</td>
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<tr>
<td>Leather tanning</td>
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</tbody>
</table>

Other sources include chrome plating, smelting of ferrochromium ore, and impurities present in portland cement.

Federal OSHA’s Small Entity Compliance Guide for the Hexavalent Chromium Standards, Appendix II, is a good reference to identify industry operations or processes associated with occupational exposures.
OR-OSHA requirements

OR-OSHA has adopted regulations to protect workers exposed to Chromium (VI) in the workplace.

The hexavalent chromium standard requires employers to:

- Limit eight-hour time-weighted average hexavalent chromium exposure in the workplace to 5 micrograms or less per cubic meter of air.
- Perform personal air monitoring at least every six months if initial monitoring shows worker exposure at or above the action level (2.5 micrograms per cubic meter of air calculated as an eight-hour time-weighted average).
- Provide appropriate personal protective clothing and equipment when there is likely to be skin or eye contact.
- Implement good personal hygiene and housekeeping practices to prevent hexavalent chromium exposure.
- Prohibit employee rotation as a method to achieve compliance with the permissible exposure limit.
- Provide respiratory protection as specified in the standard.
- Provide medical exams:
  - Within 30 days of initial assignment for workers who are or may be exposed at or above the action level for 30 or more days a year
  - Annually
  - To workers exposed in an emergency situation
  - When employees experience signs or symptoms of adverse health effects associated with Chromium (VI) exposure
  - At employment termination

Resources


Related resource links

Federal OSHA
www.osha.gov/SLTC/hexavalentchromium/index.html
www.osha.gov/Publications/OSHA_small_entity_comp.pdf
NIOSH
www.cdc.gov/niosh/topics/hexchrom/