

## **OSHA Training Toolbox Talk: Hazardous Substance Awareness – Hexavalent Chrome**

*[Reference: Parts 1910, 1915, and 1926, subpart Z; 1926 subpart Z]*

Hexavalent chromium, commonly referred to as Hex-chrome or Chromium VI, is a toxic form of chromium used in certain coatings, pigments, welding processes, and corrosion-resistant treatments. It may be present in paints, primers, plating operations, stainless-steel welding fumes, and other industrial coatings. Although many workplaces have reduced or substituted its use, Hexavalent Chromium hazards still exist, particularly during maintenance, repair, or renovation activities involving coated surfaces, equipment, or structural components.

Exposure to Hexavalent Chromium can occur during processes such as stainless-steel welding, cutting, grinding, abrasive blasting, sanding, or removal of coated surfaces. These activities can release dusts or fumes into the air, and even small amounts inhaled repeatedly over time can pose a health risk. Skin contact with Hexavalent Chromium-containing materials is also a potential route of exposure, especially when handling coated parts, tools, or surfaces without proper protection.

The main health concern associated with Hexavalent Chromium is inhalation of airborne dusts or fumes. Once inside the body, Chromium VI can penetrate lung tissue and interfere with normal cellular function. Over time, repeated exposure above permissible limits has been associated with respiratory irritation, damage to lung tissue, and an increased risk of certain respiratory diseases and cancers. Brief or incidental contact is generally not the primary concern, but repeated or prolonged exposure without proper controls can significantly increase risk. Skin contact may cause irritation or sensitization, and contaminated clothing or equipment can carry Hexavalent Chromium particles outside the work area, creating a potential take-home exposure risk.

Precautions to reduce exposure include identifying Chromium VI-containing materials before work begins and using engineering controls such as local exhaust ventilation and process isolation to reduce airborne dusts and fumes. Safe work practices that limit disturbance of coated surfaces are also important. Appropriate personal protective equipment, including gloves, protective clothing, and respiratory protection, must be worn when required. Good housekeeping and hygiene practices, such as washing hands and face before eating, drinking, or leaving the work area, also help minimize exposure. Contaminated clothing and equipment should be handled according to established procedures to prevent carrying Hexavalent Chromium particles home.

If you are working with or around Hexavalent Chromium, or if you see a label or warning sign indicating its presence, remember that merely being near Hex-chrome does not necessarily mean you are overexposed or at imminent risk. Following proper controls, procedures, and safety measures helps ensure exposure remains below OSHA's permissible limits.

If you have any questions or concerns about Hexavalent Chromium hazards or exposure, please direct them to your safety manager, supervisor, or other workplace representative. And please be sure to sign the training certification form to get credit for attending today's OSHA toolbox talk.

