



Train. Protect. Prevent.



Hexavalent Chromium

WHAT IS HEXAVALENT CHROMIUM? Chromium hexavalent (CrVI) compounds, often called hexavalent chromium, exist in several forms. Industrial uses of hexavalent chromium compounds include chromate pigments in dyes, paints, inks, and plastics; chromates added as anticorrosive agents to paints, primers, and other surface coatings; and chromic acid electroplated onto metal parts to provide a decorative or protective coating. Hexavalent chromium can also be formed when performing "hot work" such as welding on stainless steel or melting chromium metal. In these situations the chromium is not originally hexavalent, but the high temperatures involved in the process result in oxidation that converts the chromium to a hexavalent state.

HOW HEXAVALENT CHROMIUM CAN HARM EMPLOYEES? Workplace exposure to hexavalent chromium may cause lung cancer in workers who breathe airborne hexavalent chromium, irritation or damage to the nose, throat, and lung (respiratory tract) if hexavalent chromium is breathed at high levels and, irritation or damage to the eyes and skin if hexavalent chromium contacts these organs in high concentrations.

HOW DOES HEXAVALENT CHROMIUM AFFECT THE NOSE, THROAT AND LUNGS? Breathing in high levels of hexavalent chromium can cause irritation to the nose and throat. Symptoms may include runny nose, sneezing, coughing, itching and a burning sensation. **RESPIRATORY TRACT:** Hexavalent chromium can irritate the nose, throat, and lungs. Repeated or prolonged exposure can damage the mucous membranes of the nasal passages and result in ulcers. In severe cases, exposure causes perforation of the septum (the wall separating the nasal passages). Breathing small amounts of hexavalent chromium even for long periods does not cause respiratory tract irritation in most people. Some employees become allergic to hexavalent chromium so that inhaling the chromate compounds can cause asthma symptoms such as wheezing and shortness of breath. **SKIN:** Prolonged skin contact can result in dermatitis and skin ulcers. Some workers develop an allergic sensitization to chromium. In sensitized workers, contact with even small amounts can cause a serious skin rash. Repeated or prolonged exposure can cause sores to develop in the nose and result in nose-bleeds. You can protect yourself from exposure to Hexavalent Chromium by wearing all protective equipment assigned to you and by observing and following all posted warnings and those on products you may use.

OSHA'S RULE FOR HEXAVALENT CHROMIUM EXPOSURE: OSHA's Hexavalent Chromium standard requires that workers be notified only when they experienced exposures exceeding the permissible exposure limit. Workers exposed to this toxic chemical are at greater risk for lung cancer and damage to the nose, throat and respiratory tract. Occupational exposures to hexavalent chromium can occur among workers handling pigments, spray paints and coatings containing chromates, operating chrome plating baths, and welding or cutting metals containing chromium, such as stainless steel. Workers breathing hexavalent chromium compounds in high concentrations over extended periods of time may risk developing lung cancer, irritation or damage to the eyes and skin.

Work Site Review: Hazards/Safety Suggestions

Company Name: _____

Work Site Location: _____

Date: _____ Start Time: _____ Finish Time: _____

Foreman/Supervisor: _____

Employee Signatures: (continue on back of sheet if necessary)

(My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness)

Manager/Supervisor's Signature: _____

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