

### **Why protect yourself from hexavalent chromium?**

- Hexavalent chromium is a heavy metal substance that is part of the composition of stainless steel. Depending upon the level of exposure, hexavalent chromium can irritate the nose, throat and lungs, leading to nasal ulcers, skin rashes and skin ulcers. Over time, it could increase your risk of lung cancer.

### **How you can be exposed to hexavalent chromium:**

- In mechanical construction the most common means of exposure comes from hot work and grinding on stainless steel.
- Hot work releases fumes that can be inhaled.
- Grinding stainless steel creates dust that can get into the body through the skin, eyes and mouth.

### **How to protect yourself from overexposure:**

- Low concentrations of hexavalent chromium require a low level of protection.
- High concentrations of hexavalent chromium require a high level of protection.
- Concentrations from 2.5 up to 5 micrograms per cubic meter of air are at or above the Action Level, but under the Permissible Exposure Limit. At these levels, monitoring is done to ensure that exposures don't reach hazardous levels.
- Concentrations at 5 micrograms per cubic meter of air are at the Permissible Exposure Limit. Exposures above this level require comprehensive protective measures.
- Engineering controls along with safe work practices provide the best defense against overexposure.

## **Precautions include:**

### **Engineering Controls**

- Ventilation such as fans and local exhaust systems
- Tools with built-in dust collection systems
- Vacuums with HEPA filters

### **Safe Work Practices**

- Proper body positioning
- Proper welding helmet position

### **Personal Protective Equipment**

- Wear long-sleeved shirts, pants or coveralls, and gloves.
- Always wear safety glasses or goggles.
- Wear a face shield over eye protection when grinding.
- Use appropriate respirators when needed.

### **Hygiene**

- Wash hands and face at the end of every shift and before eating, drinking, smoking, chewing gum or tobacco, or applying cosmetics.
- Never eat, drink, smoke, chew gum or tobacco, or apply cosmetics in areas where hexavalent chromium may come into contact with your skin or eyes.
- Never enter a designated eating area with contaminated clothing or equipment.

## **When medical surveillance is needed:**

- Under certain conditions you may need medical surveillance, including a comprehensive medical history, physical examination and necessary medical tests. Such circumstances include:
  - Exposure at or above the Action Level for 30 or more days a year
  - If you experience symptoms associated with hexavalent chromium exposure
  - If you are exposed to an uncontrolled release of hexavalent chromium