

# HEXAVALENT CHROMIUM



## WHERE IS IT USED?<sup>1</sup>

- Hexavalent chromium (Cr(VI)), is used in metallurgy and cement industries<sup>2</sup>
- Exposure risk during welding and chromic acid plating
- Added to paints and coatings due to anti-corrosive properties



## SIGNS OF EXPOSURE

When Cr(VI) dust is inhaled, nasal mucosal polyps can form, leading to:<sup>3</sup>

- Respiratory irritation
- Sinusitis
- Nausea and vomiting

Contact with skin can result in:<sup>4</sup>

- Allergic/contact dermatitis
- Cement burns

## PRECAUTIONS<sup>5</sup>

- Wear personal protective equipment if there is risk for skin or eye contact
- Regular air monitoring to keep dust levels in check
- Use proper respiratory protection to reduce inhalation
- Practice proper housekeeping and cleaning procedure

## EXPOSURE PROCEDURE

In the event of an exposure, one should:<sup>6</sup>

- Receive emergency medical attention
- Keep airway and heart monitored
- Drink fluids and electrolytes
- If contacted with skin or eyes, flush with water

## LONG-TERM EXPOSURE:

Long term exposure to chromium in the workplace can lead to allergic contact dermatitis, lung cancer, kidney disease, and occupational asthma.<sup>4</sup>



<sup>1</sup> OSHA (n.d.)

<sup>2</sup> atlantici (2024)

<sup>3</sup> Chromium (Cr) Toxicity Clinical Assessment - History, Signs and Symptoms | Environmental

Medicine | ATSDR (2023)

<sup>4</sup> Hexavalent Chromium - Health Effects | Occupational Safety and Health Administration (n.d.)

<sup>5</sup> Hexavalent Chromium - Exposure and Controls | Occupational Safety and Health

Administration (n.d.)

<sup>6</sup> Chromium (Cr) Toxicity: How Should Patients Exposed to Chromium Be Treated and Managed?

| Environmental Medicine | ATSDR (2023)