

## E6

### Health Hazards of Hexavalent Chromium

This sheet will help employers to comply with the requirements of EU Directive 2004/37 and the terms of the REACH authorizations for uses of chromates. Working with chromates may cause cancer. This sheet describes good practice to reduce exposure. It covers the points that should be followed to reduce exposure. It is important to follow all the points, or use equally effective measures. This document should be made available to all persons who may be exposed to chromates in the workplace so that they make the best use of the control measures available.

The purpose of this Good Practice Sheet (GPS) is to explain the hazards associated with hexavalent chromium. Exposure to hexavalent chromium must be controlled to minimise the associated risks to health.

#### **Hexavalent Chromium or Cr(VI)**

Chromium Trioxide, chromic acid (aqueous solution of chromium trioxide) and other chromates contain hexavalent chromium. Hexavalent chromium, also referred to as Chromium (VI) or Cr(VI), can harm human health.

#### **Carcinogenicity**

Hexavalent chromium can cause cancer. Inhaling hexavalent chromium can cause lung cancer, and, ingesting it may cause cancer of the gut (or the gastro-intestinal tract).

#### **Allergen**

Hexavalent chromium is an allergen. Individuals that become allergic might get asthma and/or contact dermatitis (symptoms might include a rash and/or swelling) following contact to even very small amounts of hexavalent chromium. Allergic reactions vary in severity between events and individuals, but can be serious.

#### **Skin, eye and respiratory tract Irritant**

Hexavalent chromium can irritate and cause inflammation of the nose, throat and lung (respiratory tract) on inhalation. Repeated exposure can damage the nose, including sores or ulcers, particularly to the nasal septum (the tissue between the nostrils).

Irritation or burns to the skin or eyes can also occur following direct contact. Ulcers might form following repeated contact. Permanent eye damage is possible.

#### **Other health hazards**

Chromates can cause kidney damage.

There are concerns regarding potential effects on reproduction, including male fertility and effects on unborn babies.