

Good Practice Sheet for uses of Chromium Trioxide

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 chromium trioxide. Working with chromium trioxide may cause cancer. This sheet describes the health hazards of Chromium Trioxide. This document should be made available to all persons who may be exposed to chromium trioxide in the workplace so that they make the best use of the control measures available.

The purpose of this 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 and chromic acid (aqueous solution of chromium trioxide) 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

Chromium trioxide can cause kidney damage.

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