

# Are toys containing chromium VI safe for children?



## → WHAT IS CHROMIUM?

Chromium is a heavy metal that occurs in various forms in the environment. It is found in rocks, soil, animals and plants.

Metallic chromium is hard, brittle and very corrosion resistant. Several chromium compounds are used in industrial processes. Chromium is often plated to other metals to form a protective and attractive covering or is added to steel to harden it and to form stainless steel.

Chromium salts exist in different forms and the trivalent (chromium III) and hexavalent form (chromium VI) are the most abundant ones. Chromium VI can be found in chromate pigments for dyes, paints, inks and plastics, in corrosion inhibitors, in chromium-tanned leather and in wood preserved by copper chromium arsenate. Toys may be manufactured from materials containing chromium VI.

## → WHAT ARE THE HEALTH RISKS OF CHROMIUM?

Of the two most abundant forms, chromium III is a required nutrient and has very low toxicity. Chromium VI is more toxic, has irritating properties, can induce allergic reactions and is known to cause cancer when inhaled at work places. Recent studies have shown that uptake of chromium VI through drinking

water can lead to different types of cancer in the gastro-intestinal tract of experimental animals. At present, it cannot be excluded that chromium VI can also induce cancer in humans when taken up orally.

## → WHY IS CHROMIUM VI IN TOYS OF PARTICULAR CONCERN?

Children are likely to suck or chew on toys or even swallow small parts of them. Therefore children can take up chromium VI which may be released from toys.

## → WHAT IS BEING DONE TO ENSURE TOYS ARE SAFE?

The EU Toy Safety Directive sets up the rules for the marketing of toys that are produced in or imported into the EU. It sets strict limits on the migration allowed for 19 elements, including chromium, for all toys sold in the EU. The 'migration limit' is the maximum amount of a chemical compound that is allowed to be transferred from a toy to a child. The migration limits ensure that no health effects occur.

## → WHAT CAN I DO TO BE SURE TOYS ARE SAFE?

Look for the CE label on the toy or packaging, which guarantees that the toy meets all EU safety rules, which are among the strictest in the world. Buy toys from trustworthy shops, and check toys given as gifts or bought second-hand. Older toys may not meet today's health standards.

## → WHAT ARE THE CONCLUSIONS OF THIS SCIENTIFIC OPINION?

The virtual safe dose for chromium VI was lowered as a result of newer studies published since the EU Toy Safety Directive was last updated in 2009. The Scientific Committee on Health and Environmental Risks (SCHER) is of the opinion that the current migration limits for chromium VI from toys should be revised to take into account this new, lower value. Furthermore, to account for the uptake of chromium VI from other sources such as drinking water and the environment, the SCHER recommends that any additional exposure to chromium VI from toys should be minimised to the lowest achievable levels when using best available technologies.

This fact sheet is based on the opinion of the independent Scientific Committee on Health and Environmental Risks (SCHER) on "Chromium VI in toys". February, 2015

This opinion is available at:  
[http://ec.europa.eu/health/scientific\\_committees/environmental\\_risks/opinions/index\\_en.htm](http://ec.europa.eu/health/scientific_committees/environmental_risks/opinions/index_en.htm)