



## **Chromium-6 is carcinogenic, but not dangerous.**

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The manufacturing industry is particularly dependent on a "state of the art" surface technology industry. After all, all (consumer)objects, buildings, means of transport and infrastructure works require surface treatment, even the smallest parts. If this is not the case, it would rust or rot (for example buildings, bridges, door knobs, and bicycles), lose its quality (for example because of the finish and color perception), or it would not have the right properties (for example tools such as chisels and drills and wear-resistant surfaces of bearings and shafts).

Substitute if possible and authorize if necessary, only then safe use is possible. That is the slogan with which CETS is committed to reducing the use of SVHC and CMR substances as much as possible. Chromium-6 is such a substance. However, due to the versatility of this substance, it cannot be replaced.

Chromium-6 is found in many compounds. There are hundreds of processes and products that use chromium-6 compounds. A property of chromium 6 is without a doubt the fact that it is carcinogenic. However, this does not mean chromium-6 has to be dangerous. A letter from the Dutch Ministries of Social Affairs and Employment and Public Health, Welfare and Sport to the Dutch House of Representatives (5 September 2018), RIVM (Dutch Health and Safety Institute) states that with normal use of chromium-containing materials, such as touching material in which chromium-6 is incorporated, chromed objects (objects covered with a shiny layer of chrome) and painted surfaces do not present any health risks. Chrome-6 is no longer present in chrome-plated objects. On painted surfaces, the chromium-6 is bonded in such a way that there will be no exposure under normal usage.

Only aftertreatments such as blasting, sanding,... can make the painted surfaces, in which chromium-6 is present in the bonded state (as a pigment or due to corrosion limitation), release Chromium-6 in dust form. This can be inhaled if insufficient safety measures are taken. If the substance accumulates in the lungs, it can cause cancer. The risk of actually developing cancer comes from the degree of exposure of the person in question and the state of the human body. In all other cases, such as the processing of metalized surfaces, only metal dust is produced. There is no chromium-6 in this metal dust.

Because chromium-6 is usually a production substance (intermediate), and this production substance is used by professionals in a closed building, the substance can be processed safely. However, the employer will have to take the correct (safety)

measures and the employee must follow the correct work instructions and procedures and must implement the protective measures correctly.

A large number of objects such as buildings and bridges that were made of chromium-containing paint deserve special attention. To prevent the chromium-6-containing dust from evaporating good measures will have to be taken. Even though the chances of health effects occurring are small, we simply do not want to have this substance in the environment.

Incidentally, for many mobile products, such as defense equipment and trains, (closed) location(s) have been created where the paint can be safely removed.

In order to clarify the attention points, to map out the consequences and to offer a standard set of measures and their effects, Vereniging ION has started the “Exposure” project. ION not only looks at chrome-6, but also at a number of other frequently used SVHC / CMR fabrics in the surface technology industry. The information will also be available on the website of CETS. Keep an eye on the website [www.cets-eu.be](http://www.cets-eu.be) for more information or subscribe to the free CETS newsletter via the same website.

