

Don't Give Chromium(VI) a Chance

Detecting | Mastering | Preventing

Długoteka, 5 October 2026

Chromium(VI) in Hospital Engineering: a Hazard That Has So Far Been Overlooked

The Chromate Experts draw attention to a process that the amended German TRGS 561 has described since May 2026 and that directly affects operators of their own energy generation in hospitals and care facilities

Carcinogenic chromium(VI) compounds form on thermally stressed chromium-alloyed steel components. The German Technical Rule for Hazardous Substances TRGS 561, in force since 4 May 2026, describes the situation in section 5.9.3 and states that these compounds are deposited in the insulation materials and can lead to exposure of employees during dismantling or maintenance work. Affected are combined heat and power (CHP) plants, boiler plants, emergency generators and the associated pipework, precisely the installations with which hospitals ensure their security of supply.

According to an evaluation of the German Market Master Data Register (Marktstammdatenregister) by The Chromate Experts, 221 operators from the hospital and care sector with their own combined heat and power plants are listed there. The actual number is higher: pure emergency generators below one megawatt are exempt from the registration requirement.

The decisive point is that the dust can leave the place where it forms. TRGS 561 turns this into an obligation of the employer. Section 4.1 paragraph 4 number 3 letter d states:

"Work clothing and protective clothing contaminated by dust must not be shaken out and generally not blown off. The employer shall ensure that employees with contaminated work and protective clothing do not carry it over into other areas."

Section 5.9.3 adds that the generation and spread of dust into other work areas must be minimised, and section 4.2 that spreading to uncontaminated work areas must be avoided. These provisions would not exist if carry-over were impossible.

In a hospital, this has a dimension unknown to an industrial company. Building services staff and contractors move between the energy centre and areas in which people with weakened immune defences are treated. Clothing, footwear and tools take the same route. The Chromate Experts make no finding about individual hospitals. They point out that this route has so far not appeared in any risk assessment or hygiene plan, because chromate formation on insulation materials has only recently been regulated.

The BG ETEM (German statutory accident insurance for energy, textiles, electrical and media products) states that "according to current knowledge, all industries in which the above-mentioned influencing factors apply may be affected by the problem". Chromium(VI) compounds are carcinogenic, absorbed through the skin and skin-sensitising (H350, H317) as well as chronically hazardous to the aquatic environment (H410).

In section 4.1 paragraph 1, TRGS 561 also requires examining substitution by substances with a lower health hazard. This is where the process can be stopped at its root. There are insulation materials that do not contain the oxides responsible for chromate formation. Where they are used, the dust that would then have to be controlled does not form.

"We are not claiming that chromates have reached sensitive areas in German hospitals," says Markus Sommer, initiator of The Chromate Experts. "We are saying that it can happen and that nobody has checked it. Prevention means including this in the risk assessment now, while there is nothing to deal with afterwards."

A technical information paper with the situation, legal classification and protective measures is available on request. Quotations from German sources are our translations.

Don't Give Chromium(VI) a Chance

Detecting | Mastering | Preventing

About The Chromate Experts

The Chromate Experts is a network with partners in Germany, Switzerland and the United Kingdom. It deals with the formation of chromium(VI) compounds on thermally loaded chromium-alloyed components in industry, energy generation, shipping and vehicle technology. Its initiator is Markus Sommer, who has worked in high-temperature insulation since 1988.

Press contact

Markus Sommer, The Chromate Experts

markus.sommer@chromatexperten.de · www.chromatexperten.de · +49 1525 429 9530