

DENMARK RAISES CONCERN ABOUT CHROMIUM VI COMPOUNDS IN LEATHER ARTICLES

Recently, the Danish Ministry of Environment has published: "Survey and health assessment (sensitisation only) of chromium in [leather shoes](#)". The survey provides the background data clarifying the position regarding the potential risks that chromium VI and chromium III compounds are released from leather shoes in an amount that constitutes a risk of causing allergic reactions.

The Danish market survey was based on those leather shoes releasing chromium VI and chromium III in amounts that constitute a risk of allergic reactions in wearers. Sixty pairs of leather shoes (in a range of shoe categories and types) were purchased from the most well-known shoe chains in Denmark (within the Copenhagen area). In determinations using XRF screening, 50 of the 60 purchases had a chromium content of between 1 and 3% in the upper leather. 8 out of 18 shoes were found to be chromium VI positive (i.e. over 3ppm by ISO 17075). No direct correlation was observed between the total chromium and chromium VI or the shoe category, shoe type or price range. The survey report also put a high concern on sandals as they are more likely to be worn with bare feet and the direct exposure to chromium VI is likely to be higher.



Generally, chromium is used in a large technical scale in chrome plating, leather tanning, dyes and pigments, etc. Usually, chromium VI is rarely found in nature, but it is a fairly good oxidizing agent in the chemistry world. In textile and apparel, chromium VI is usually associated with plastics, dyes and tanned leather. It also can be formed in poorly tanned leathers when they are exposed to extremes of

temperature or pH. Chromium VI is regarded as one of the most well-know allergens and carcinogens. When in prolonged, direct skin contact, certain chromium VI compounds can cause skin ulcers.

Currently, entry number 47 of the European Union Regulation ([EC No. 552/2009](#) (REACH Annex XVII) restricts chromium VI substances in non-consumer products. Recently (September 2011), Denmark has written to the European Chemicals Agency (ECHA) of its intention to submit a restriction proposal for chromium VI compounds in leather articles¹. According to the ECHA's registry of intentions, the proposal will be submitted in January 2012. Germany also has restricted the presence of chromium VI in leather materials in consumer products with body contact under the legislation - Item 2 of Appendix 4 in Bedarfsgegenständeverordnung effective since August 2010².

SGS is committed to inform interested parties on any regulatory update. Throughout our global network of laboratories and offices, we offer high quality testing and consultancy services for textile, footwear and accessories. For more information, please feel free to contact us or visit [our website](#).



¹ [The source of Danish's plan on restriction for Chromium VI compounds](#)

² [Safeguards 147/10, Germany Bans Chromium \(VI\) in Leather Products](#)

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