HOHENSTEIN

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The EU Chemicals Agency (ECHA) and its member states have assessed a group of 148 bisphenols and recommended that 34 bisphenols need to be restricted due to their potential hormonal or reprotoxic effects.

Need for restriction

Three bisphenols (bisphenol A, bisphenol B and 2,2-bis(4'-hydroxyphenyl)-4-methylpentane) have already been identified as substances of very high concern (SVHCs). SVHC identification or harmonised classification and labelling is proposed for further bisphenols where sufficient information on hazards is already available. However, for many group members, more data needs to be generated before potential endocrine-disrupting and reprotoxic properties can be confirmed.

German authorities are preparing a proposal to restrict the use of bisphenol A and other bisphenols with endocrine-disrupting risks for the environment. Once it is clearer which bisphenols the German proposal will cover, ECHA and the European Commission will consider the need for further regulatory action on bisphenols.

The planned restriction of per- and polyfluoroalkyl substances (PFASs) will also need to be considered in any additional action, as bisphenol AF and its eight salts are also defined as PFASs. (1)

BPA in socks

The California based Center for Environmental Health (CEH) found elevated **Bisphenol A (BPA)** levels in socks, primarily made of polyester with spandex, from several brands.

Different blends of polyester, cotton, and spandex were tested. The concentrations found were up to 19 times over the California safe limit of the chemical, though socks predominantly made from cotton were not affected.

The presence of BPA is reason for concern. BPA is believed to cause developmental and reproductive harm and is linked to breast cancer, prostate cancer, metabolic disorders, diabetes and numerous other serious health concerns, especially in infants and toddlers. The route of exposure for the chemical is dermal absorption - directly through the skin - when wearing the socks, as well as ingestion via hand-to-mouth contact after touching or handling the socks.

New method to measure more than just Bisphenol A

Crushed, homogeneous sample material is weighed and mixed with an internal standard and solvent. This is followed by extraction using an ultrasonic bath.

Subsequently, the analysis is conducted via HPLC-MS/MS.

(1) https://echa.europa.eu/de/-/group-assessment-of-bisphenols-identifies-need-for-restriction