

TÜV Rheinland LGA Products – Information

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Updates of German BfR requirements for paper and paperboard food contact materials

German Federal Institute for Risk Assessment (BfR) is an institute reporting to the Federal Ministry of Food and Agriculture (BMEL), which assesses risks that may arise from many different areas of daily life, including food contact materials. Food contact materials can contain substances, which can result in health risks if they are released to food and then absorbed by consumers via food consumption. BfR publishes recommendations for different kinds of food contact materials, such as silicone, rubber, paper and paperboard, based on the current state of scientific and technical knowledge.

In a recent international food contact symposium, a BfR representative shared a topic of “Current risk assessment of food contact materials – Paper and board” and explained the current work on the foreseeable update of BfR Recommendation XXXVI. The major updates are:

1. Extraction of Bisphenol A (BPA) for recycled fibres as raw material for paper
 - Lower the limit value from 0.24 mg/kg of food to 0.05 mg/kg of food in order to align with the specific migration limit of BPA specified in Commission Regulation (EU) 2018/213.
2. Always use EN 645 (cold water extraction) for extraction of 1,3-Dichloro-2-propanol (1,3-DCP) and 3-monochloro-1,2-propanediol (3-MCPD)
 - A study shows that the result of 1,3-DCP and 3-MCPD in EN 647 (hot water extraction) is lower than in EN 645 (cold water extraction).
 - EN 645 (cold water extraction) is therefore seen as worst case and will be used for extraction of 1,3-DCP and 3-MCPD regardless of the intended use.
3. Addition of aluminium requirement
 - Aluminium can be used in paper production. Its use is broad and is listed in BfR recommendation as fillers, auxiliary agents, etc.
 - A limit value of 1 mg/l is proposed based on the scientific opinion on the safety of aluminium from EFSA. Nevertheless, industry review is still needed and a transitional period will be probably given.

The above stated updates are expected to be published by December 2019 and the corresponding BfR recommendations will be updated accordingly.

BfR opinion No. 37/2019 on contaminants coming from printed paper food contact materials

Furthermore, BfR released a latest scientific opinion regarding four substances coming from colorful printed paper materials, namely naphthol AS (CAS 92-77-3), NAAX (CAS 97-36-9), NDPA (CAS 2050-43-3) and HNS (CAS 92-70-6). These substances are most likely starting materials, impurities or degradation products of (azo) colorants. For these four substances, there are no legal migration limits nor health guideline values available. However for naphthol AS, NAAX and NDPA, the current toxicological concern is significantly higher than for HNS. Based on the available data and computer-assisted predictions, BfR comes to the conclusion that it can be assumed that these substances or their degradation products in the human organism – with exception of HNS - could possess both mutagenic and carcinogenic properties due to their chemical structure. Therefore, a limit of “not detected” is suggested for these 3 substances and BfR advises that materials which release these substances or their starting materials should not be used in contact with foodstuffs until suitable toxicological studies have been carried out to prove the safety of these substances.

BfR sets scientific standards in consumer health protection and is well-recognized in Germany as well as other countries. Additionally, the BfR limits can be seen as a toxicological evaluation according to scientific standards. It is highly recommended to consider this latest scientific opinion for printed paper food contact materials when producing such articles for the German market. Meanwhile, we have developed and validated the test method, please check with the local office for the availability of the services.

Reference link:

<https://www.bfr.bund.de/cm/343/buntbedruckte-baeckertueten-servietten-und-co-koennen-gesundheitsgefaehrdende-stoffe-freisetzen.pdf>

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