

Migration of plasticisers from twist-off lids to food

Updated BfR Opinion No. 025/2007, 19 June 2006*

Laboratories in the federal *Laender* detected plasticisers in around 190 food samples from jars with twist-off lids, above all in oil-containing foods like pasta sauces and pesto. The substances migrate from the lid seals of the jars to food and in many samples they exceeded the limits envisaged within the EU for plasticisers. The Federal Institute for Risk Assessment (BfR) has undertaken a health assessment of the contaminated foods and supplements the findings from its 2005 Opinion.

Plasticisers are used by industry in order to render plastics like PVC pliable. In addition to lid seals, they are used in many different ways: in carpets, cable insulation, toys or cling film. As plasticisers are not chemically bound to PVC, they may be dissolved or gassed out when they come into contact with liquids or fats. The toxic properties of plasticisers differ from substance to substance. The EU Scientific Committee on Food (SCF) and the European Food Safety Authority (EFSA) undertook health assessments of individual substances and established tolerable daily intakes (TDIs).

In its exposure assessment, BfR comes to the conclusion that the TDIs for various plasticisers are, in some cases, considerably exceeded through the consumption of the foods examined, and that the consumption of these foods can harm health. This applies above all to exposure to the plasticiser, DEHP. This is particularly worrying because consumers ingest plasticisers not only from food packaging but from many other products.

BfR, therefore, recommends foregoing the use of plasticisers which, like DEHP, have particularly harmful properties when in contact with food and replacing them with less harmful substitutes. Furthermore, the data available on the incidence of plasticisers like DEHA and DINCH in food, for instance as a consequence of their use in cling film, should be improved in order to be able to better estimate the overall exposure of consumers.

The full version of the BfR Opinion in German is available on http://www.bfr.bund.de/cm/216/uebergang_von_weichmachern_aus_twist_off_verschluessen_in_lebensmittel.pdf

* Updated Opinion of 20 July 2007