

## **Replacement of isopropyl thioxanthone (ITX) in printing inks by non-assessed substances is not appropriate**

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Food packaging carries printed text in order to provide consumers with information. The printing inks contain chemical substances that can migrate to food and be ingested. This also applies to photoinitiators. They are used to harden printing ink as rapidly as possible.

Substances in printing inks may migrate to food via various pathways. They can pass through the packaging if the packaging material does not contain a barrier like an aluminium layer. Furthermore, they can reach food through spread. During storage on a roller as is customary for cartons or foils, or through the stacking of beakers, the printed outside comes into contact with the package interior. This means that substances can reach the inner inside of the packaging and later migrate to the food packaged in it.

Against this backdrop the food control authorities of the federal *Laender* examined food packaging and, in some cases, the food to determine the levels of photoinitiators. The Federal Institute for Risk Assessment (BfR) has voiced an opinion on these results and has come to the following conclusion. With the exception of isopropyl thioxanthone (ITX), the toxicological assessment of the photoinitiators used is not possible at the present time because of inadequate data. The data available for ITX permit the conclusion that the substance does not have any genotoxic potential and can be used in food packaging as long as migration does not exceed 50 microgram ITX per kilogram food. BfR is of the opinion that the replacement of ITX by other photoinitiators for which no or only inadequate toxicological data are available at the present time, is not appropriate.

After the elaboration of this opinion, an advisory meeting was held in April 2008 at the Federal Ministry of Food, Agriculture and Consumer Protection (BMELV) on the use of printing inks in food packaging. The Association of the Printing Industry stated there that one substitute for ITX, diethyl thioxanthone (DETX) is no longer used by its member companies. The Association has declared its willingness to make available any toxicological information at its disposal on the photoinitiators concerned to BfR.

The full version of this BfR Opinion is available in German on [http://www.bfr.bund.de/cm/216/ersatz\\_von\\_isopropylthioxanthon\\_in\\_druckfarben\\_durch\\_nicht\\_bewertete\\_stoffe\\_ist\\_nicht\\_sachgerecht.pdf](http://www.bfr.bund.de/cm/216/ersatz_von_isopropylthioxanthon_in_druckfarben_durch_nicht_bewertete_stoffe_ist_nicht_sachgerecht.pdf)