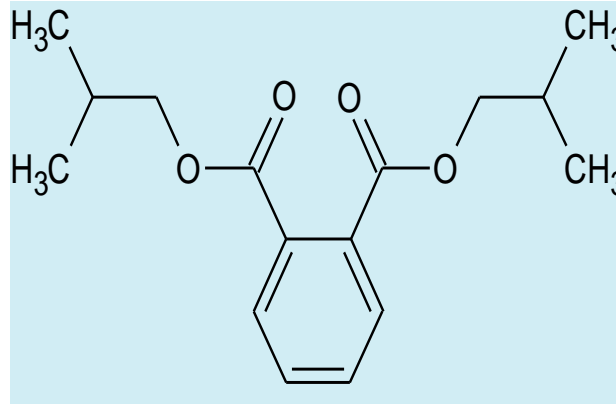


Phase-out of di-isobutyl phthalate in food packagings made of recycled paper and board

Substance:



di-isobutyl phthalate, DiBP
CAS N°. 84-69-5

- Source: Dispersion adhesives used for instance in folding boxes and corrugated board for non-food applications and in print products.
- By recycling DiBP arrives in paper and board for food contact.
- Main route from packaging into food is gas phase transfer .
In particular, fat-containing foods as well as food with a high specific surface like rice, baking mixtures or breadcrumbs are affected.

DiBP in food packaged in recycled paper and board

Starting point:

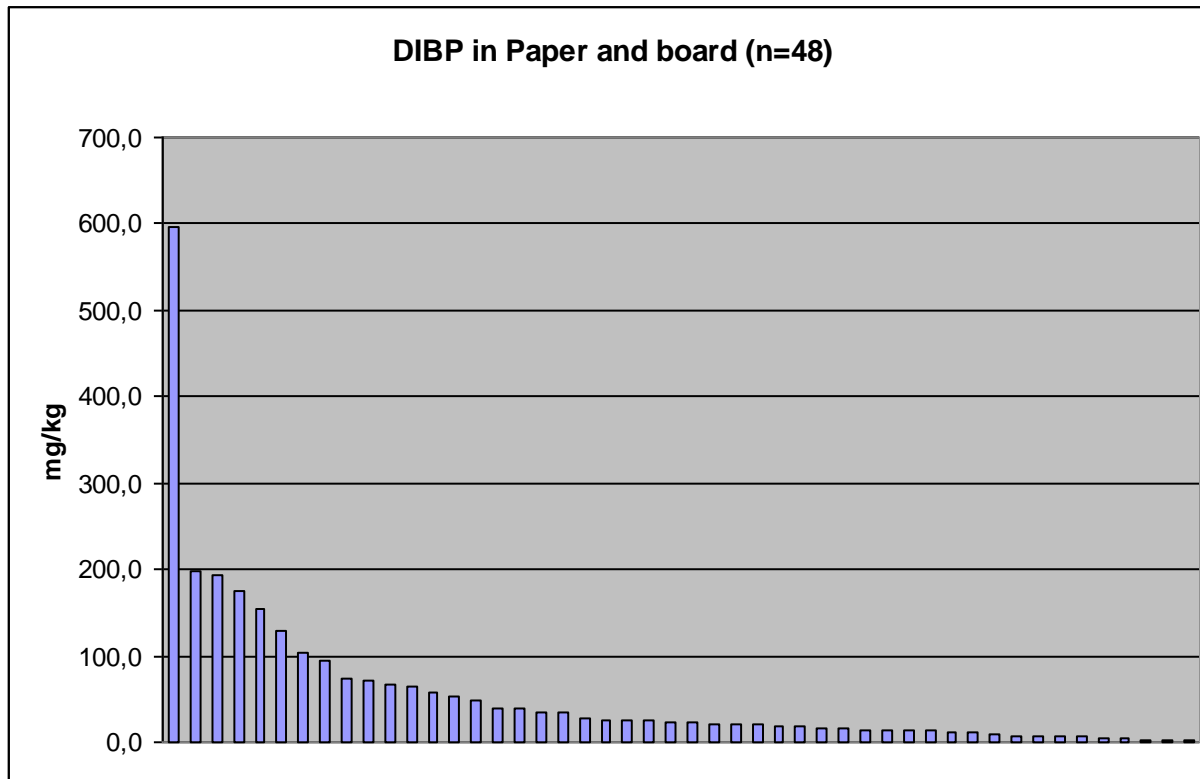
In 2007, BfR was asked to give a risk assessment regarding findings of food control laboratories on DiBP in food packed in recycled paper and board.

78 samples tested, thereof 48 samples revealed >0.3 mg DiBP/kg food and 10 samples > 1.0 mg DiBP/kg food:4

Sample ID	food type	DiBP in food [mg/kg]	DiBP in packaging material [mg/kg]
CV 4544	couscous	1.1	67.4
CV 5896	rice	1.1	16.7
CV 4538	rice	1.0	20.2
CV 5936	infant formula (spelt)	1.6	33.4
CV 4541	wheat flour	5.0	14.5
CV 6511	flour mix	4.8	13.5
CV 6510	flour mix	3.6	28.6
CV 4504	flour mix	3.2	72.1
CV 6379	wholemeal crispbread	1.8	57.2
CV 4540	icing sugar	3.2	8.0

DiBP in food packaged in recycled paper and board

DiBP content in paper and board :



European Food Safety Authority

Toxicological evaluation of DiBP (2004):

SCF-List: 8

(Substances for which no or only scanty and inadequate data were available)

Toxicological evaluation of DBP (CAS 84-74-2, 2005):

TDI: 0.01 mg/kg b.w.

- Derived from effects on the development of male and female offspring (loss of germ cell development and mammary gland changes).

Risk assessment by BfR in 2007

Derivation of a transitional guidance value for DiBP in food packaged in paper and board:

- Application of TDI for DnBP (0.01 mg/kg b.w.)
- 50 % exhaustion of TDI by transfer from food contact materials due to other sources of exposure (allocation factor)
- 60 kg body weight
- Daily consumption of 300 g fatty food and food with large specific surface packaged in paper and board made from recycled fibres



1.0 mg DiBP/kg food

0.5 mg DiBP/kg baby and infant food

Final objective: 0.3 mg DiBP/kg food

Classification of DiBP in European chemicals law

- Identification as substance of very high concern in 2008 and inclusion in the SVHC Candidate List by decision ED/68/2009

- **Regulation (EC) 1272/2008**

Repr. 1B H360FD (May damage the unborn child. Suspected of damaging fertility.)

- Addition to Annex XIV of Regulation (EC) No 1907/2006
No request for authorisation, sunset date 21/02/2015

Di-isobutyl phthalate in food packaged in paper and board

Activities:

- Discussions with industrial associations concerned (manufacturers and processors of paper and board, print media, adhesives)
(See:
http://www.bfr.bund.de/cm/230/di_isobutyphthalate_in_food_contact_paper_and_board.pdf)
- Suggestion of a voluntary commitment to waive the use of DiBP in adhesives, printing inks and other products
- Co-operation with the Federal Environment Agency (UBA)

Di-isobutyl phthalate in food packaged in paper and board

„Initiative for reduction of DiBP in paper and board“

signed **November 15, 2007**, joined by 9 industrial associations, addressed to BfR and UBA

- No products - in particular adhesives - should be used which contain DiBP
- Report on the measures taken including analytical findings in production control and final articles.
- Information on trends in disposal of DiBP containing adhesives.

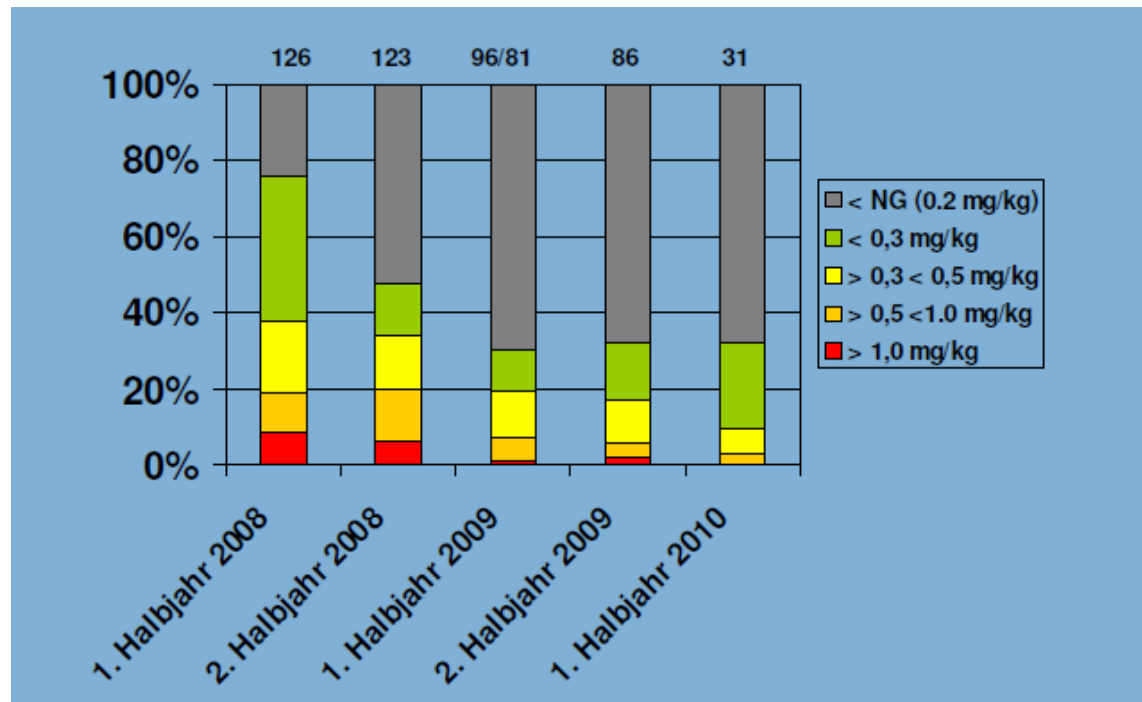
Aim:

Reduction of transfer of DiBP from recycled paper and board packagings into food to 0.3 mg/kg until 2010

Accompanying, the effect of the measures was surveyed by Official Food Control laboratories.

Di-isobutyl phthalate in food packaged in paper and board

Results of official control:



BVL, 2010

Outcome

- Rapid reduction of DiBP in the food concerned, supported by the identification as SVHC and inclusion in the SVHC Candidate List
- March 2011, BfR Recommendation XXXVI on Paper and Board for Food Contact:

Implementation of the guidance value for the transfer of DiBP into food from recycled paper and board of **0.3 mg/kg, expressed as sum of DBP and DiBP.**

Surveillance Project

„Migration of unwanted substances from packaging materials made of recovered paper and board into food“ (Federal Ministry of Nutrition, Agriculture and Consumer Protection, 2010 – 2012)

119 food samples, tested in August 2011

DiBP > 0.3 mg/kg: 28 samples (max. 34.9 mg/kg, mean 0.95 mg/kg, P50 0.11 mg/kg)

DiBP + DBP > 0.3 mg/kg: 7 samples

Status quo

- DiBP can no longer be used in Europe for uses in the scope of REACH authorisation if no authorisation has been granted.
- The possibility of contamination of the recycling loop by imported packaging materials from third countries cannot be excluded.
- Up-to-date data on DiBP in food packed in recovered paper and board are needed.

Thank you for your attention!

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