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X. Polyamides

As of 01.06.2013

There are no objections to the use of polyamides in the manufacture of commodities in the sense of § 2, Para. 6, No 1 of the Food and Feed Code (Lebensmittel- und Futtermittelgesetzbuch), provided they are suitable for their intended purpose and the following conditions are met:

1. The use of starting materials for polyamides with predominantly polyamide in the total mixture is subject to the Commission Regulation (EU) No 10/2011.

The evaluation presented in the following refers to polymers from the following monomeric starting substances:

Straight chain ω -aminocarboxylic acids of chain length C₆-C₁₂ and lactames thereof, as far as covered by the positive list of the Commission Regulation (EU) No 10/2011

Isophthalic acid

Bis-(4-aminocyclohexyl)-methane

3,3'-Dimethyl-4,4'-diaminodicyclohexyl-methane

Terephthalic acid and its dimethyl ester

1,6-Diamino-2,2,4-trimethylhexane

1,6-Diamino-2,4,4-trimethylhexane

1-Amino-3-aminomethyl-3,5,5-trimethylcyclohexane

Hexamethylenediamine

Adipic acid

Copolymers from ethylene, propylene, butylene and unsaturated aliphatic acids as well as their salts and esters, as far as complying with the amended version of the BgVV Recommendation XXXV. However, not cross-linked copolymers according to section A of the Recommendation XXXV as well as cross-linked copolymers according to section B of the Recommendation XXXV with the substances listed in No 4 b) of this section are excluded if the commodities are intended to come into contact with fats, oils or fatty foodstuffs in which fat forms the external phase.

Polyethylene, as far as complying with the amended version of the BfR Recommendation III

Polyvinylpyrrolidone (mean molecular weight 700,000), max. 1 %.

The proportion of polyamides must predominate in the overall mixture.

2. Additives permitted by the Commission Regulation (EU) No 10/2011 may be used in accordance with the restrictions laid down therein. In addition to these, the finished products may only contain the following substances, used during manufacture and processing, in the maximum amounts given (based on polyamide):
 - a) Residues of catalysts or reaction regulators and their conversion products:
 - Phosphorous acid, as well as its sodium and calcium salts
 - Sodium compounds of caprolactam¹ and of C-alkyl(C₁-C₃)-substituted caprolactam max. 1.0 %
 - Stearyl isocyanate¹

¹ Restrictions on the use of these substances, laid down in the Commission Regulation (EU) No 10/2011, must be complied with.

Cyclohexyl isocyanate¹
Hexamethylene diisocyanate¹
Toluylene diisocyanate¹
Diphenylmethane-4,4'-diisocyanate¹

The total content of catalysts and/or their conversion products must not exceed 1.5 %.

b) Cross-linking and/or chain-lengthening substances:

Methylene biscaprolactam
Di-tert-butyl peroxide, max. 0.5 %

The surface of the commodity must not react positively for peroxides².

3. The finished products must not affect smell or taste of their contents. This is particularly important when foodstuffs, in which water forms the external phase, are subjected to extended periods of heating in commodities made from polyamides.

² See 58th Communication on the testing of plastics in Bundesgesundheitsblatt 40 (1997) 412