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XXXVII. Polybutene-(1)

As of 01.01.2010

There are no objections to the use of polybutene-(1) 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 comply with the following conditions:

1. The use of starting materials for polybutene-(1) 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:

- a) *Monomer: Butene-1*
- b) *Comonomers: Ethylene and higher α -olefins, e.g. propylene and 4-methyl-pentene, as far as they are covered by the positive list of the Commission Regulation (EU) No 10/2011, in total max. 10 %*

The melt flow index as determined according to DIN ISO 1133 of the polybutene-(1) must not exceed 30 (5 kp, 190 °C), the melting point of crystallites must not be below 110 °C.

2. Additives already permitted by the Commission Regulation (EU) No 10/2011 may be used in compliance with the restrictions laid down therein. In addition to these, the raw polymer or finished products may contain only the following production aids, used during manufacture and processing, in the maximum amounts given:
 - a) Residues of catalysts¹:
Oxides of aluminium², magnesium², titanium and vanadium, in total max. 0.1 %.
However, the finished products must contain no more than max. 0.002 % (= 20 ppm) vanadium, calculated as vanadium pentoxide (V₂O₅).
 - b) Molecular weight regulators:
2,5-Dimethyl-2,5-di(tert-butylperoxy)hexane, max. 0.08 %
Di-tert-butyl peroxide, max. 0.1 %
3. In mixing polybutene-(1) after this Recommendation with other polymers or copolymers, the requirements of the Commission Regulation (EU) No 10/2011 apply. The other polymers and copolymers must also comply with the corresponding amended BfR Recommendations.

¹ Catalysts or their decomposition products not contained in the finished product are not considered.

² Aluminium oxide and magnesium oxide are permitted as additives after the Commission Regulation (EU) No 10/2011.