

COMMISSION RECOMMENDATION

of 3 March 2014

on the monitoring of traces of brominated flame retardants in food

(Text with EEA relevance)

(2014/118/EU)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 292 thereof,

Whereas:

- (1) Brominated flame retardants are organobromine compounds which are applied to products in order to inhibit or slow down the ignition of combustible materials in case of fire. They are commonly used in a wide range of consumer goods for example electronics, cars, furniture and construction materials to reduce the flammability of the product. Brominated flame retardants can leach out or evaporate from the products in which they were used. Since consumer goods are discharged at the end of their life, these substances have over time contaminated the environment and the food chain.
- (2) However, many brominated flame retardants are persistent, bioaccumulative, and toxic to both humans and the environment. They are suspected of causing neurobehavioral effects and endocrine disruption and they have been found in biota in the environment.
- (3) Therefore, the Commission asked the European Food Safety Authority (EFSA) to prepare a scientific opinion on the risks to public health related to the presence of brominated flame retardants in food.
- (4) The Scientific Panel on Contaminants in Food of EFSA adopted six scientific opinions⁽¹⁾ on different classes of brominated flame retardants between September 2010 and September 2012.

⁽¹⁾ EFSA Panel on Contaminants in the Food Chain (CONTAM); Scientific Opinion on Polybrominated Biphenyls (PBBs) in Food. *EFSA Journal* 2010; 8(10):1789. [151 pp.] doi:10.2903/j.efsa.2010.1789.
 Scientific Opinion on Polybrominated Diphenyl Ethers (PBDEs) in Food. *EFSA Journal* 2011; 9(5):2156. [274 pp.] doi:10.2903/j.efsa.2011.2156.
 Scientific Opinion on Hexabromocyclododecanes (HBCDDs) in Food. *EFSA Journal* 2011; 9(7):2296. [118 pp.] doi:10.2903/j.efsa.2011.2296.
 Scientific Opinion on Tetrabromobisphenol A (TBBPA) and its derivatives in food. *EFSA Journal* 2011; 9(12):2477. [61 pp.] doi:10.2903/j.efsa.2011.2477.
 Scientific Opinion on Brominated Flame Retardants (BFRs) in Food: Brominated Phenols and their Derivatives. *EFSA Journal* 2012; 10(4):2634. [42 pp.] doi:10.2903/j.efsa.2012.2634.
 Scientific Opinion on Emerging and Novel Brominated Flame Retardants (BFRs) in Food. *EFSA Journal* 2012; 10(10):2908. [125 pp.] doi:10.2903/j.efsa.2012.2908.

- (5) EFSA recommended, for a number of those classes, that further data on levels in food and in humans should be gathered.
- (6) Levels of brominated flame retardants in food of animal origin could be related to the presence of these substances in animal feed, therefore, based on the first results of the monitoring of food in 2014, a recommendation as regards the monitoring of animal feed could follow in 2015,

HAS ADOPTED THIS RECOMMENDATION:

1. Member States should perform monitoring on the presence of brominated flame retardants in food, during the years 2014 and 2015. The monitoring should include a wide variety of individual foodstuffs reflecting consumption habits in order to give an accurate estimation of exposure and different food commodities should be included for the different classes of brominated flame retardants
2. Member States should follow the sampling procedures laid down in Annex II to Commission Regulation (EU) No 252/2012⁽²⁾ in order to ensure that the samples are representative of the sampled lot.
3. Member States should carry out analysis of the different classes of brominated flame retardants in order to detect the presence of the following substances in the respective food commodities:
 - (a) for the class of polybrominated diphenyl ethers (PBDEs): 2,2',4-tribromodiphenyl ether (BDE-28, CAS No 41318-75-6); 2,2',4,4'-tetrabromodiphenyl ether (BDE-47, CAS No 5436-43-1); 2,2',4,5'-tetrabromodiphenyl ether (BDE-49, CAS No 243982-82-3); 2,2',4,4',5-pentabromodiphenyl ether (BDE-99, CAS No 60348-60-9); 2,2',4,4',6-pentabromodiphenyl ether (BDE-100, CAS No 189084-64-8); 2,2,3,4,4,5-hexabromodiphenyl ether (BDE-138, CAS No 67888-98-6); 2,2',4,4',5,5'-hexabromodiphenyl ether (BDE-153, CAS No 68631-49-2); 2,2',4,4',5,6'-hexabromodiphenyl ether (BDE-154, CAS No 207122-15-4); 2,2',3,4,4',5',6'-heptabromodiphenyl

⁽²⁾ Commission Regulation (EU) No 252/2012 of 21 March 2012 laying down methods of sampling and analysis for the official control of levels of dioxins, dioxin-like PCBs and non-dioxin-like PCBs in certain foodstuffs and repealing Regulation (EC) No 1883/2006 (OJ L 84, 23.3.2012, p. 1).

ether (BDE-183, CAS No 207122-16-5) and 2,2',3,3',4,4',5,5',6,6'-decabromodiphenyl ether (BDE-209, CAS No 1163-19-5), in eggs and egg products, milk and dairy products, meat and meat products, animal and vegetable fats and oils, fish and other seafood, products for specific nutritional uses, and food for infants and small children, using analytical methods with a limit of quantification of 0,01 ng/g wet weight or lower;

- (b) for the class of hexabromocyclododecanes (HBCDDs): (+/-)- α -HBCD (1,2,5,6,9,10-hexabromo-(1R,2R,5S,6R,9R,10S)-rel-cyclododecane, CAS No 134237-50-6); (+/-)- β -HBCD (1,2,5,6,9,10-hexabromo-(1R,2S,5R,6R,9R,10S)-rel-cyclododecane, CAS No 134237-51-7) and (+/-)- γ -HBCD (1,2,5,6,9,10-hexabromo-(1R,2R,5R,6S,9S,10R)-rel-cyclododecane, CAS No 134237-52-8) in fish and other seafood, meat and meat products, milk and dairy products, eggs and egg products, as well as infant and follow-up formula. The analytical methods used for the determination of HBCDDs include the determination of stereoisomers and should have a limit of quantification of 0,01 ng/g wet weight or lower;
- (c) for the class of tetrabromobisphenol A and its derivatives: tetrabromobisphenol A (TBBPA, CAS No 79-94-7) and possibly TBBPA bismethyl ether (TBBPA-bME, CAS No 70156-79-5); TBBPA bis(2-hydroxyethyl) ether (TBBPA-bOHEE, CAS No 4162-45-2); TBBPA bisallyl ether (TBBPA-bAE, CAS No 25327-89-3); Tetrabromobisphenol A bis(glycidyl ether) (TBBPA-bGE, CAS No 3072-84-2) and TBBPA bis(2,3-dibromopropyl)ether (TBBPA-bDiBPrE, CAS No 21850-44-2) in fish and other seafood, meat and meat products, milk and dairy products, and eggs and egg products. The analytical methods used for the determination of tetrabromobisphenol A and its derivatives should have a limit of quantification of 0,1 ng/g wet weight or lower;
- (d) for the class of brominated phenols and their derivatives: 2,4,6-tribromophenol (2,4,6-TBP, CAS No 118-79-6); 2,4-dibromophenol (2,4-DBP, CAS No 615-58-7); 4-

bromophenol (4-BP, CAS No 106-41-2); 2,6-dibromophenol (2,6-DBP, CAS No 608-33-3); tetrabrominated bisphenol S (TBBPS, CAS No 39635-79-5); tetrabromobisphenol S bismethyl ether (TBBPS-BME, CAS No 70156-79-5) in fish and other seafood. The analytical methods used for the determination of brominated phenols and their derivatives should have a limit of quantification of 0,1 ng/g wet weight or lower;

- (e) for the emerging and novel brominated flame retardants: tris(2,3-dibromopropyl) phosphate (TDBPP, CAS No 126-72-7); N,N'-ethylenebis(tetrabromophthalimide) (EBTEBPI, CAS No 32588-76-4); hexabromocyclododecane (HBCYD, CAS No 25495-98-1); bis(2-ethylhexyl) tetrabromophthalate (BEH-TEBP, CAS No 26040-51-7); 2-ethylhexyl 2,3,4,5-tetrabromobenzoate (EH-TBB, CAS No 183658-27-7) and dibromoneopentyl glycol (DBNPG, CAS No 3296-90-0) in fish and other seafood, meat and meat products (including edible offal), animal and vegetable fats and oils, milk and dairy products, eggs and egg products and food for infants and small children. The analytical methods used for the determination of emerging and novel brominated flame retardants should have a limit of quantification of 1 ng/g wet weight or lower.
4. Member States should carry out the analysis of brominated flame retardants in accordance with Annex III to Regulation (EC) No 882/2004 of the European Parliament and of the Council ⁽¹⁾ using a method of analysis that has been proven to generate reliable results.
5. Member States should provide, on a regular basis to EFSA, the monitoring data expressed on whole weight basis or fat basis with the information and in the electronic reporting format as set out by EFSA for compilation into one database. They should include available data obtained from previous years by using a method of analysis that has been proven to generate reliable results in order to monitor trends in exposure.

Done at Brussels, 3 March 2014.

For the Commission

Tonio BORG

Member of the Commission

⁽¹⁾ Regulation (EC) No 882/2004 of the European Parliament and of the Council of 29 April 2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules (OJ L 165, 30.4.2004, p. 1).