

# SAFEGUARDS

## CONSUMER GOODS AND RETAIL

FOOD

NO. 010/13 JANUARY 2014

## EU RECOMMENDATION FOR THE REDUCTION OF DIOXINS, FURANS AND PCBS IN FEED AND FOOD

On 3 December 2013, European Union (EU) [Commission Recommendation 2011/516/EU](#) was replaced by [Commission Recommendation 2013/711/EU](#). In the new recommendation, EU Member States should monitor the presence of dioxins, furans, and dioxin-like PCBs in food, especially in free range and organic eggs, liver of sheep and lamb, Chinese mitten crab (muscle meat from appendage, brown meat, and total products), dried herbs (feed and food), and clays sold as food supplements. The action levels of these compounds in the products should express and refer to wet weights basis.

Polychlorinated dibenzo-p-dioxins (PCDDs), poly chlorinated dibenzofurans (PCDFs), and dioxin-like poly chlorinated biphenyls (PCBs) are toxic contaminants that cause immunological system damage and cancer in humans. Here the term of dioxins refers to the sum of PCDDs and PCDFs. Dioxins and dioxin-like PCBs are very persistent and widely distributed in the environment and food chains. Ingestion via food consumption is the main route for human exposure. Recently, several dioxin crises occurred in food products such as poultry, pork, beef, eggs, and seafood resulting in huge economic losses. The contamination came from feed contaminated with these compounds. Due to their lipophilic properties, dioxins and dioxin-like PCBs accumulate in fatty animal tissue and the liver.

To protect the health of consumers, the EU has established maximum levels for dioxins and sum of dioxins and dioxin-



like PCBs for foods by [Commission Regulation \(EC\) No 1881/2006](#) and for feeds by [Directive 2002/32/EC](#). Furthermore, in order to stimulate a proactive approach to reduce the presence of dioxins and dioxin-like PCBs in food and feed Commission Recommendation 2011/516/EU set action levels as an early warning. The unit of action levels of dioxins and dioxin-like PCBs are expressed as toxic equivalents (WHO-TEQ) according to World Health Organization (WHO) [toxic equivalency factor \(TEF\)](#) scheme. The Recommendation 2011/516/EU was now replaced by Commission Recommendation 2013/711/EU. It recommends an additional focus on several products to be monitored.

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The additional action levels of the updated food products are listed in Table 1. Member States should take action as follows in case the food products and feed are non-compliant with maximum levels and action levels:

- Initiate investigation and identification of contaminated sources
- Reduce or eliminate the source of contamination
- Submit all the occurrence data of dioxin and DL-PCBs in food and feed to the European Food Safety Authority (EFSA)
- Inform the Commission and the other Member states about their findings, the results of their investigation, and the measures taken to reduce or eliminate the source of contamination



**TABLE 1. ACTION LEVELS OF DIOXINS AND DL-PCBS IN FOOD PRODUCTS AS STATED IN COMMISSION RECOMMENDATION 2013/711/EU**

FOOD	ACTION LEVEL FOR DIOXINS + FURANS (WHO-TEQ) (1)	ACTION LEVEL FOR DIOXIN-LIKE PCBS (WHO-TEQ) (1)
Meat and meat products (excluding edible offal) (2) of the following animals - bovine animals and sheep - poultry - pigs Mixed fats	1.75 pg/g fat (3) 1.25 pg/g fat (3) 0.75 pg/g fat (3) 1.00 pg/g fat (3)	1.75 pg/g fat (3) 0.75 pg/g fat (3) 0.5 pg/g fat (3) 0.75 pg/g fat (3)
Muscle meat of farmed fish and farmed fishery products	1.50 pg/g wet weight	2.5 pg/g wet weight
Raw milk (2) and dairy products (2), including butter fat	1.75 pg/g fat (3)	2.00 pg/g fat (3)
Hen eggs and egg products (2)	1.75 pg/g fat (3)	1.75 pg/g fat (3)
Clays as food supplement	0.5 pg/g wet weight	0.35 pg/g wet weight
Fruits, vegetables (including fresh herbs) and cereals (4)	0.3 pg/g wet weight	0.1 pg/g wet weight
<p>1. Upperbound concentrations: Upperbound concentrations are calculated assuming that all the values of the different congeners less than the limit of quantification are equal to the limit quantification.</p> <p>2. Foodstuffs lists in this category as defined in Regulation (EC) No 853/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific hygiene rules for food of animal origin (Oj L 139, 30.4.2004, p.55).</p> <p>3. The action levels are not applicable for food products containing &lt; 2% fat.</p> <p>4. For dried fruits and dried vegetables (including dried herbs) the action level is 0.5 pg/g for dioxin + furan and 0.35 pg/g for dioxin-like PCBs, expressed on the product as sold.</p>		

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