



**GUIDANCE NOTE ON  
THE CONTAMINANTS IN FOOD (ENGLAND) REGULATIONS**

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## SECTION 1

### INTRODUCTION

**1.1** This Guidance Note has been produced by the Food Standards Agency with the aim of providing informal guidance and a general introduction to The Contaminants in Food (England) Regulations. The Regulations, which are made under The Food Safety Act 1990, make provision for the enactment and enforcement of European Commission Regulation 1881/2006 which sets maximum limits for certain contaminants in foodstuffs, and implement a number of allied enforcement Commission Regulations dealing with sampling and analysis procedures.

**1.2** In England, the provision for the enactment, enforcement and implementation of the European Community (EC) measures is currently under The Contaminants in Food (England) Regulations 2007 (Statutory Instrument 2007 No.210) Similar Regulations will apply in Northern Ireland, Scotland and Wales. A brief summary of the provisions, offences and sanctions under the Contaminants in Food (England) Regulations 2007 is provided at **Section 4**. Copies of the Regulations are available from the Office of Public Sector Information website at [www.opsi.gov.uk/stat.htm](http://www.opsi.gov.uk/stat.htm). A summary of the main provisions under The Food Safety Act, as amended, is at **Section 5**.

**1.3** This Guidance Note does not provide guidance on the use of food contact materials or contamination arising from the use of packaging materials, for which the Agency has published separate guidance. Copies of this and other guidance published by the Agency can be obtained from the Agency's website at: <http://www.food.gov.uk/foodindustry/guidancenotes/>

### Important Note:

**This Guidance Note is not a substitute for the EC or UK legislation and should be read in conjunction with them.**

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## SECTION 2:

### **2.1 THE EC LEGISLATION: A BRIEF OVERVIEW**

**2.1.1** EC food and feed law is based on the principle that food and feed business operators at all stages of production, processing and distribution within the businesses under their control are responsible for ensuring that food and feed satisfy the requirements of food and feed law which are relevant to their activities.

#### **General Food Law**

**2.1.2** The basic principles with regard to food and feed law are laid down in [Regulation \(EC\) No 178/2002](#) of the European Parliament and of the Council of 28 January 2002. The Regulation lays down the general principles and requirements of food law, establishes the European Food Safety Authority and lays down procedures in matters of food safety. It came into force on 21 February 2002, although certain key provisions have applied only from 1 January 2005. The principle aim of the Regulation is to protect human health and

consumers' interests in relation to food. The key obligations on food and feed business operators are set out in a Commission document at [http://europa.eu.int/comm/dgs/health\\_consumer/foodsafety.htm](http://europa.eu.int/comm/dgs/health_consumer/foodsafety.htm). Food business operators should ensure that they are familiar with the provisions, requirements and obligations set out in this Regulation.

**2.1.3** Section 4 to Regulation (EC) 178/2002 sets out the general requirements of food law. In particular, Article 14 to the Regulation lays down the food safety requirements and provides that food shall not be placed on the market if it is unsafe. The Article states that food shall be deemed unsafe if it is considered to be

- a) injurious to health;
- b) unfit for human consumption

## Official Controls

**2.1.4** The official controls that are required to be carried out on food and feed are laid down in [Regulation \(EC\) No 882/2004](#) of the European Parliament and of the Council of 29 April 2004 on official controls to be performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules. The Regulation lays down the official controls that should be carried out to enforce food and feed legislation and animal health and welfare rules and to monitor and verify that the relevant requirements thereof are fulfilled by business operators at all stages of production, processing and distribution.

## Contaminants in Food Legislation

**2.1.5** In addition to these basic food and feed rules more specific food and feed laws cover different areas such as contaminants. EC legislation on contaminants in food is made under the framework Regulation for food contaminants, [Council Regulation 315/93/EEC](#) of 8 February 1993, which lays down Community procedures for contaminants in food and applies to those contaminants which are not covered by other specific Community legislation.

Article 1.1 to the Regulation defines a contaminant as-

“any substance not intentionally added to food which is present in such food as a result of the production (including operations carried out in crop husbandry, animal husbandry and veterinary medicine), manufacturing, processing, preparation, treatment, packing, packaging, transport or holding of such food, or as a result of environmental contamination. Extraneous matter, such as, for example, insect fragments, animal hair, etc, is not covered by this definition.”

**2.1.6** Article 2 to the Regulation provides that:

- i) food containing a contaminant in an amount that is unacceptable from the public health viewpoint, and in particular at a toxicological level, shall not be placed on the market. (A definition of placing on the market can be found at Article 3.8 to Commission Regulation 178/2002); and
- ii) in order to protect public health, where necessary, maximum levels shall be set for specific contaminants and that these levels shall be adopted in the form of a non-exhaustive Community list.

**2.1.7** Factors that may affect levels of contamination of the food supply are outlined in Annex I

**2.1.8** In view of disparities between the laws of Member States in regard to the maximum levels for contaminants in certain foodstuffs and the consequent risk of distortion of competition, Community measures, most recently (**Commission Regulation (EC) No 1881/2006** of 19 December 2006) have been introduced under Council Regulation 315/93/EEC.

## 2.2 COMMISSION REGULATION 1881/2006

2.2.1 The intention of [Commission Regulation \(EC\) No. 1881/2006](#), which repeals and expands Commission Regulation (EC) No 466/2001, is to provide consumers with an increased measure of protection by setting EC maximum levels for specific mycotoxins and undesirable process and environmental contaminants in those foodstuffs that are significant contributors to the total dietary exposure of consumers to those contaminants. The Regulation aims to keep these contaminants at levels that are toxicologically acceptable and to exclude grossly contaminated food from entering the food chain. They also harmonise Member States' existing measures, thereby facilitating trade. Maximum levels for lead, cadmium, mercury, dioxins, and nitrate (environmental chemical contaminants), 3-monochloropropane-1,2-diol (3-MCPD) (a process contaminant), aflatoxins, ochratoxin A, patulin, Fusarium toxins (deoxynivalenol, zearalenone and fumonisins) (mycotoxins), polycyclic aromatic hydrocarbons (environmental and processing contaminant) and inorganic tin (in canned foodstuffs) are covered by this legislation. Other contaminants will be added as and when candidate substances and appropriate maximum permitted levels are agreed.

2.2.2 The Regulation also specifies the methods of sampling and analysis that are required to be used for the official control of levels of the substances specified in the legislation. These methods are set out in a number of allied Commission Regulations, details of which are given below:

- [Commission Regulation \(EC\) No. ???/2007](#), lays down methods of sampling and analysis for the official control of levels of lead, cadmium, mercury, inorganic tin, 3-MCPD and benzo(a)pyrene in certain foodstuffs. The Regulation replaces and revokes [Commission Directive 2001/22/EC](#), [Commission Directive 2004/16/EC](#) and [Commission Directive 2005/10/EC](#), which continue to apply until it comes into effect later in 2007
- [Commission Regulation \(EC\) No. 1882/2006](#), lays down methods of sampling and analysis for the official control of levels of nitrate in certain foodstuffs. The Regulation replaces Commission Directive 2002/63/EC
- [Commission Regulation \(EC\) No. 1883/2006](#), lays down methods of sampling and analysis for the official control of levels of dioxins and dioxin-like PCBs. The Regulation replaces and revokes Commission Directive 202/69EC, as amended.
- [Commission Regulation \(EC\) No. 401/2006](#) lays down methods of sampling and analysis for the official control of levels of aflatoxins, ochratoxin A, patulin and Fusarium toxins in foodstuffs. The Regulation replaces and revokes Commission Directives 98/53/EC, 2002/26/EC, 2003/78/EC and 2005/38/EC.

2.2.3 A [Table](#) summarising the food commodities to which the maximum levels apply is overleaf (Pages 7-8) and hyperlinks to the relevant EC legislation have been provided. The Notes section at the end of the Table contains information on the relevant EC legislation which provides definitions and/or a list of the commodities and species to which the contaminant levels set under Commission Regulation 1881/2006 apply. Please note that although hyperlinks have been provided for this defining legislation it is not within the remit of The Contaminants in Food (England) Regulations. Please also note that some of this legislation is subject to amendment and you are advised to check the Commission's website for the most up to date information. In addition, a table listing the main foodstuffs subject to control is given at [Annex II](#) (Pages 15-23). **Please note that the lists contained in both tables are non-exhaustive.**

2.2.4 In view of the requirement to protect public health by keeping contaminants at levels that are toxicologically acceptable, as an ongoing task, the European Commission in co-

operation with Member States investigates whether limits should be set for additional contaminants and also reviews the maximum levels of those contaminants currently covered by the legislation. Consequently, the specific maximum levels set in the Regulation have not been included in the table and you are advised to read the Annex to Regulation 1881/2006 for information on the levels and the exact description of the categories of foods to which they apply. In addition, the provisions in the various Articles to the Regulation must be taken into account when checking compliance with the legislation.

**2.2.5** Copies of the relevant European legislation are available from the Commission website at <http://eur-lex.europa.eu/en/index.htm>.

Indicative table of contaminants and foodstuffs specified in the sections to the Annex to **Commission Regulation (EC) 1881/2006**

CONTAMINANTS												
	Section 1 Nitrate	Section 2 Mycotoxins				Section 3 Heavy Metals				Section 4 3-MCPD	Section 5 Dioxins & dioxin-like PCBs	Section 6 PAHs
		Aflatoxins	Ochratoxin A	Patulin	Fusarium toxins	Lead	Cadmium	Mercury	Tin			
<a href="#">Commission Regulation 1881/2006</a>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Relevant Sampling & Analysis Regulations-	<a href="#">Commission Regulation 1882/2006</a>	<a href="#">Commission Regulation 401/2006/EC</a>				<a href="#">Commission Directive 2001/22/EC</a> and <a href="#">Commission Directive 2004/16/EC</a> then <a href="#">Commission Regulation ???/2007</a>				<a href="#">Commission Directive 2001/22/EC</a> , then <a href="#">Commission Regulation ???/2007</a>	<a href="#">Commission Regulation 1883/2006</a>	<a href="#">Commission Directive 2005/10/EC</a> , then <a href="#">Commission Regulation ???/2007</a>
<b>Commodity</b>												
Specified Alcoholic Drinks <sup>1</sup>			✓	✓		✓						
Edible Offal <sup>2</sup>						✓	✓				✓	
Fish (muscle meat), Fishery Products, Crustaceans, Molluscs and other Aquatic Invertebrates <sup>3</sup>						✓	✓	✓				✓
Fruit <sup>4</sup>		✓	✓	✓		✓	✓					
Groundnuts <sup>5</sup>		✓										
Edible nuts <sup>5</sup>		✓										
Hen Eggs & Egg Products <sup>6</sup>											✓	
Infant foods including infant formulae & follow on formulae & infant & baby food for special medical purposes <sup>7</sup>	✓	✓	✓	✓	✓	✓			✓			✓
Horsemeat <sup>8</sup>							✓					
Milk <sup>9</sup>		✓				✓					✓	
Vegetables <sup>10</sup>	✓					✓	✓					
Meat & Meat Products of Bovine animals, Sheep, Pig, Poultry and Farmed Game						✓	✓				✓	✓
Cereals & cereal products		✓	✓		✓	✓	✓					
Pulses						✓	✓					
Spices (specified species only)		✓										
Hydrolysed vegetable protein & Soy Sauce						✓	✓		✓			
Canned foods, beverages & infant foods									✓			
Fruit juices, fruit nectars and vegetable juices			✓	✓					✓			
Fats and Oils including milk fat, animal fat, vegetable oil and fat and marine oil						✓					✓	✓
Coffee and coffee products			✓									

## Notes.

NOTE	IN ADDITION TO THE VARIOUS COMMODITY DESCRIPTORS IN THE COMMISSION REGULATION, COMMODITY DEFINITIONS ARE DESCRIBED IN THE FOLLOWING COMMISSION MEASURES:
1	Wines: <a href="#">Council Regulation (EC) No 1493/1999</a> Aromatised wines: <a href="#">Council Regulation (EEC) No 1601/1991</a> , as amended Spirit drinks: <a href="#">Council Regulation (EEC) No 1576/1989</a> , as amended
2	Edible offal including liver and derived products: <a href="#">Regulation (EC) No 853/2004</a>
3	Fish, fishery products, crustaceans, molluscs and other aquatic invertebrates: <a href="#">Commission Regulation (EC) No 104/2000</a>
4	Fruit (citrus, pome, stone, berries & small fruit, miscellaneous eg avocados, bananas, dates, dried vine fruits, dried figs, kiwi, olives etc): <a href="#">Commission Regulation (EC) No 396/2005</a>
5	Groundnuts & edible nuts (tree nuts shelled or unshelled): <a href="#">Commission Regulation (EC) No 396/2005</a>
6	Hen eggs & egg products: <a href="#">Regulation (EC) No 853/2004</a>
7	Infant formulae & follow-on formulae: <a href="#">Commission Directive 91/321/EEC</a> , as amended Processed cereal based foods and baby foods: <a href="#">Commission Directive 96/5/EC</a> , as amended Dietary foods for special medical purposes intended specifically for infants: <a href="#">Commission Directive 1999/21/EC</a>
8	Meat and meat products: <a href="#">Regulation (EC) No 853/2004</a>
9	Milk: <a href="#">Regulation (EC) No 853/2004</a>
10	Vegetables (root, tuber, bulb, fruiting, Brassicas, leaf, fresh herbs, legume, stem & all cultivated fungi): <a href="#">Commission Regulation (EC) No 396/2005</a>

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## **SECTION 3:**

### **3.1 CHECKING COMPLIANCE WITH THE LEGISLATION**

**3.1.1** All food business operators at all stages of production, processing and distribution are required to ensure that the foodstuffs which they place on the market meet the regulatory limits set in Commission Regulation EC No 1881/2006

**3.1.2** Commission Regulation 1881/2006 is supported by a number of allied enforcement Regulations, which lay down the procedures for the sampling and analysis for the official control of the contaminants specified in the legislation. The legislation applies specifically to enforcement authorities (including official analysts) and their aim is to ensure consistent enforcement of the Regulations throughout the EU. Industry is not obliged to follow the procedures laid down in the Regulations although it may wish to do so.

**Because of the wide scope of the measures, neither the Commission legislation on sampling and analysis nor this Guidance Note prescribe the number of checks that should be carried out by enforcement officials, food producers, food importers or others involved in the chain of supply to ensure compliance with the legislation, although risk-based controls are recommended.**

Where official checks are carried out that involve sampling, three enforcement samples should be taken. Food Business Operators (FBOs) should be given one sample (the defence sample) and notified of the availability in certain circumstances of a third (reference) sample. In the case of non-compliance, FBOs have the option of either arranging for the defence sample to be analysed at a laboratory of their choice or requesting that the reference sample is submitted for analysis at the Laboratory of the Government Chemist at their expense. It should also be noted that there is a requirement for samples taken under official controls to be reported with the level of recovery, whether the result has been corrected or not for recovery and the result  $\pm$  the measurement of uncertainty. Although this is for official control purposes only, such practice in the reporting of results is worthy of note to food business operators.

**3.1.3** The following legislation should be taken into account when checking compliance -

**(i) Commission Regulation (EC) No 1881/2006**

Article 1 to the Regulation requires that the foodstuffs indicated in its Annex must not, when placed on the market, contain higher contaminant levels than those specified in that Annex, and that the maximum levels specified shall apply to the edible part of the foodstuffs mentioned. Article 2 makes provision for products which are dried, diluted, processed or composed of more than one ingredient.

**(ii) The provisions of The Food Safety Act 1990**

Those working in the production, processing, storage, distribution and sale of food have general responsibilities and should be taking all reasonable precautions to ensure compliance with The Food Safety Act. Industry should be using Good Manufacturing Practices, and Hazard Analysis and Critical Control Point (HACCP) procedures, and Good Agricultural Practice codes should also be followed.

### **(iii) Regulation (EC) No 178/2002 of the European Parliament and of the Council**

The Regulation lays down the general principles and requirements of food law, establishes the European Food Safety Authority and lays down procedures in matters of food safety.

Paragraph 1, Article 17 requires Food and Feed business operators at all stages of production, processing and distribution within the business under their control to ensure that foods or feeds satisfy the requirements of food law which are relevant to their activities and shall verify that such requirements are met.

Paragraph 2, Article 17 requires Member States to enforce food law, and monitor and verify that the relevant requirements of food law are fulfilled by food and feed business operators at all stages of production, processing and distribution.

The Regulation is enforced by the General Food Regulations 2004 (SI 2004 No 3279).

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## **SECTION 4:**

### **THE CONTAMINANTS IN FOOD (ENGLAND) REGULATIONS 2007**

[The Contaminants in Food \(England\) Regulations 2007](#), by enforcing the requirements of Commission Regulation 1881/2006 -

- (a)** provides that it is an offence (*regulation 3*):
  - (i) to place on the market certain foods if they contain contaminants of any kind specified in the Commission Regulation at levels exceeding those specified (subject to a derogation applicable to certain types of lettuce and fresh spinach in relation to the limits for nitrate);
  - (ii) to use products which do not comply with the maximum levels as food ingredients for the production of compound or other foodstuffs;
  - (iii) to mix foods which do not comply with the maximum levels referred to above with foods which do comply;
  - (iv) in relation to aflatoxins, to mix foods to which the Commission Regulation relates and which are intended for direct consumption with foods to which the Commission Regulation relates and which are intended to be sorted or otherwise treated prior to consumption, or
  - (v) in relation to mycotoxins, to detoxify by chemical treatment food not complying with the limits specified in the Commission Regulation;
- (b)** specifies the enforcement authorities (*regulation 4*);
- (c)** provides for the application of specified provisions of the Food Safety Act 1990 for the purposes thereof (*regulation 5*);

- (d) makes consequential amendments to the Food Safety (Sampling and Qualifications) Regulations 1990 in so far as they apply in relation to England (*regulation 6*).

Note –

- The sampling and analysis Regulations that should be followed when carrying out checks for enforcement purposes are listed in the Explanatory Note to the Regulations only. (The sampling and analysis legislation is already implemented by the Commission Regulation and thus does not need further implementation in the English Regulations).
- EC Regulation 882/2004 provides directly applicable controls on **imports** of both products of animal origin and non-animal origin. In relation to food of non-animal origin and some foods containing only small amounts of products of animal origin, the relevant domestic legislation is the Official Feed and Food Controls (England) Regulations 2006 (SI 2006/15)
- EC Regulation 178/2002 provides the legal base standard for the export or re-export of food from the Community to third countries.

## SANCTIONS

A fine not exceeding level 5 (£5000) on the standard scale will apply in the case of breaches of the offences listed in regulation 3 part (a) and (b).

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## SECTION 5:

### THE FOOD SAFETY ACT 1990: A BRIEF OVERVIEW

**5.1** All food not only at the retail level but throughout the food chain is controlled by [The Food Safety Act 1990](#) and secondary legislation on safety and labelling. The Act (Reference: ISBN 0 10 54 1690 8) came into force on 1 January 1991 and provides for the enforcement of Food Law in Great Britain in tandem with the certain pieces of core EC legislation mentioned in this Guidance Note and the new Hygiene Regulations, which applied from 1 January 2006 (<http://www.food.gov.uk/foodindustry/guidancenotes/hygguid/>). A similar law applies in Northern Ireland.

**5.2** The Act has been amended by [The Food Safety Act 1990 \(Amendment\) Regulations 2004](#) (SI 2004 No 2990) which came into force on the 7 December 2004. These Regulations replace the existing definition of “food” in the Act with the definition that applies under Regulation (EC) 178/2002. In addition, new Regulations ([The General Food Regulations 2004](#) (SI 2004 No 3279)) came into force on 1 January 2005. The main purpose of these Regulations, which amend The Act, is to provide new enforcement powers in respect to new obligations on food businesses under Regulation 178/2002.

**5.3** In summary, the main offences under of The Food Safety Act 1990 as amended are:-

**Section 7** contains the offence of rendering food injurious to health, (by adding anything to it or removing from it, using anything as an ingredient, or by subjecting the food to any other process or treatment) with intent that it should be sold for human consumption;

**Section 14** makes it an offence to sell, to the prejudice of the purchaser, food which is not of the nature or substance or quality demanded by him or her; and

**Section 15** creates an offence of falsely describing, advertising or presenting food.

**5.4** Guidance on The Food Safety Act 1990 (Amendment) Regulations 2004 and The General Food Regulations 2004 is available from the Agency's website at <http://www.food.gov.uk/foodindustry/guidancenotes/foodguid/generalfoodsafetyguide>.

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# Annex I

## **FACTORS THAT MAY AFFECT LEVELS OF CONTAMINATION OF THE FOOD SUPPLY**

This annex refers to the specific contaminants in food as covered by this EC and UK legislation. It is a non exhaustive list of factors and includes some illustrative examples which may be considered by food and feed operators:

Note: In addition to the general information provided below codes of practice developed by Codex are available. These provide information on prevention and reduction of a number of contaminants covered by the legislation and can be found in the “Official Standards” section of the Codex website at:

[http://www.codexalimentarius.net/web/index\\_en.jsp](http://www.codexalimentarius.net/web/index_en.jsp)

### **(i) Environmental**

Local environmental conditions may lead to the contamination of a product. The impact of various environmental factors should be considered including:

- Air quality e.g. crops or livestock grown or reared in close proximity to significant sources of chemical emissions to air.
- Water quality e.g. fish and shellfish should not be harvested from polluted waters
- Land quality and land history e.g. the proximity of land used for growing or rearing of crops or livestock to an industrial site or a site which has previously been used for industrial purposes
- Climatic variations e.g. the implications of a drought or excessive rain upon a raw material

### **(ii) Primary production (including harvest)**

Primary producers should be aware of and utilise Good Agricultural Practices (GAPs). Primary producers should consider intervention and controls to minimise contamination of a product during its growth and harvest, e.g.:

- Damp harvesting conditions are likely to increase mycotoxins in certain crops
- Crops may be contaminated during ‘drying’ processes
- Possibility of contamination from contaminated feed or fertiliser

### **(iii) Storage and transport conditions**

Following both the harvesting and processing/manufacturing of a product it is important to maintain appropriate controls to ensure that the possibility of contamination is minimised:

- Suitable storage and transport conditions should be maintained taking into account the nature of the product. Considerations should include appropriate moisture levels, temperature and exposure to light, e.g. damp storage conditions are likely to increase mycotoxin levels in certain crops
- Measures should be considered to prevent or control possible infestation or taint, e.g. cross contamination from contaminated storage facilities or transport

#### **(iv) Processing and manufacturing**

Processing and manufacturing techniques, which are applied to specific products, may concentrate or dilute contaminant levels. Processors and manufacturers should utilise existing Good Manufacturing Practices (GMPs) as these can assist in identifying potential areas of contamination or dilution through use of specific production techniques and may also help to control cross contamination, e.g.:

- The formation of some PAHs in products can be related to specific heating conditions
- The use of contaminated water could lead to increased levels of tin, lead or cadmium in a product
- The use of appropriate manufacturing processes can control the formation of 3-MPCD in a product
- Good manufacturing processes can assist in reducing mycotoxin levels, e.g. patulin in apple juice. [See EC Recommendation 2003/598/EC]

#### **(v) The nature of the product**

Some products are known to naturally accumulate certain contaminants eg:

- Older animals and fish are likely to have accumulated higher levels of certain contaminants than younger ones
- Certain animal organs can selectively accumulate certain contaminants (e.g. kidney tends to concentrate cadmium)
- Some varieties of vegetables and fruits naturally absorb and accumulate higher levels of certain contaminants during growth

#### **(vi) Other**

Food contact materials may contribute to the contamination of a product. Care should be taken to ensure that appropriate food contact materials are used and are in compliance with the legal requirements, e.g.

- The use of unlacquered or plain cans may contribute to increased tin levels in a product

#### **(vii) Actions**

The Food Standards Agency has produced an online form so food and feed businesses can notify us if they are withdrawing any products from the market. This can be found at <http://www.food.gov.uk/foodindustry/regulation/foodfeedform>.

From 1 January 2005 food and feed businesses were required to withdraw food or feed from the market if products are not compliant with the food or feed safety requirements of Regulation 178/2002. They must also notify the competent authorities (in the UK, the relevant Local Food Authority and the Agency).

## Annex II

### NON-EXCLUSIVE LIST OF FOOD COMMODITIES AND CONTAMINANTS CONTROLLED BY THE FOOD CONTAMINANTS REGULATIONS 2006

Note the regulatory limits for tin, mentioned in the indicative table, apply to all canned foods.

Commodity	Contaminant
<b>Apple products</b>	
Apple juice	Patulin, lead, cadmium
Solid apple products intended for direct human consumption	Patulin, lead, cadmium
<b>Baby foods and foods for young children</b>	
Baby foods and processed cereal-based foods for infants and young children	Aflatoxin B <sub>1</sub> , ochratoxin A, patulin (not cereal-based products), deoxynivalenol, zearalenone, nitrate, lead, cadmium, PAHs
Infant formulae and follow-on formulae, including infant milk and follow-on milk	Aflatoxin M <sub>1</sub> , lead, cadmium, PAHs
Dietary foods for special medical purposes intended specifically for infants	Aflatoxin B <sub>1</sub> , ochratoxin A, lead, cadmium, PAHs
Apple juice and solid apple products for infants and young children	Patulin, lead, cadmium, PAHs
<b>Cereals</b>	
Barley	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), ochratoxin A, deoxynivalenol, zearalenone, lead, cadmium
Buckwheat ( <i>Fagopyrum</i> spp.)	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), ochratoxin A, deoxynivalenol, zearalenone, lead, cadmium
Corn	Aflatoxins B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), ochratoxin A, deoxynivalenol, zearalenone, lead, cadmium
Maize	Aflatoxins B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), ochratoxin A, deoxynivalenol, zearalenone, fumonisins, lead, cadmium
Oats	Aflatoxins B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), ochratoxin A, deoxynivalenol, zearalenone, lead, cadmium
Rice	Aflatoxins B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), ochratoxin A, lead, cadmium
Rye	Aflatoxins B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), ochratoxin A, deoxynivalenol, zearalenone, lead, cadmium
Sorghum	Aflatoxins B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), ochratoxin A, deoxynivalenol, zearalenone, lead, cadmium
Wheat	Aflatoxins B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), ochratoxin A, deoxynivalenol, zearalenone, lead, cadmium
<b>Cereal products</b>	
Bran	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), ochratoxin A, deoxynivalenol, zearalenone, lead, cadmium

<b>Commodity</b>	<b>Contaminant</b>
Germ	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), ochratoxin A, deoxynivalenol, zearalenone, lead, cadmium
Processed products including bread, pastries, biscuits, cereal snacks	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), ochratoxin A, deoxynivalenol, zearalenone, lead, cadmium
<b>Coffee</b>	
Roasted coffee beans, ground roasted coffee and soluble coffee	Ochratoxin A
<b>Dairy products</b>	
Butter	Aflatoxin M <sub>1</sub> , lead, dioxins
Butter fat	Lead, dioxins
Cheese	Aflatoxin M <sub>1</sub> , lead, dioxins
Infant formulae/follow-on formulae	Aflatoxin M <sub>1</sub> , lead, dioxins
Milk	Aflatoxin M <sub>1</sub> , lead, dioxins
Milk fat	Lead, dioxins
Milk powder/dried milk	Aflatoxin M <sub>1</sub> , lead, dioxins
Yoghurt	Aflatoxin M <sub>1</sub> , lead, dioxins
<b>Eggs and egg products</b>	
Hen eggs and egg products	Dioxins
<b>Fats</b>	
Fats, including milk fat	Lead, dioxins, PAHs
<b>Fish and fishery products</b> (including Bivalve molluscs Cephalopods Crustaceans)	lead, cadmium, dioxins, mercury and PAHs
<b>Fruit – dried</b>	
Apples	Lead, cadmium
Apricots	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), lead, cadmium
Avocados	Lead, cadmium
Bananas	Lead, cadmium
Bilberries	Lead, cadmium
Blackberries	Lead, cadmium
Cherries	Lead, cadmium
Cranberries	Lead, cadmium
Currants (dried grapes)	Ochratoxin A, lead, cadmium
Currants (red, black or white)	Lead, cadmium
Dates	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), lead, cadmium
Dewberries	Lead, cadmium
Dried vine fruit (currants, raisins, sultanas)	Ochratoxin A, lead, cadmium

<b>Commodity</b>	<b>Contaminant</b>
Figs	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), lead, cadmium
Gooseberries	Lead, cadmium
Grapefruit	Lead, cadmium
Grapes	Ochratoxin A, lead, cadmium
Kiwi fruit	Lead, cadmium
Kumquats	Lead, cadmium
Lemons	Lead, cadmium
Limes	Lead, cadmium
Loganberries	Lead, cadmium
Lychees	Lead, cadmium
Mandarins (including clementines & other hybrids)	Lead, cadmium
Mangoes	Lead, cadmium
Olives	Lead, cadmium
Oranges	Lead, cadmium
Passion fruit	Lead, cadmium
Peaches	Lead, cadmium
Pears	Lead, cadmium
Pinneapples	Lead, cadmium
Plums	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), lead, cadmium
Pomegranates	Lead, cadmium
Pomelos	Lead, cadmium
Prunes	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ), lead, cadmium
Quinces	Lead, cadmium
Raisins	Ochratoxin A, lead, cadmium
Raspberries	Lead, cadmium
Strawberries	Lead, cadmium
Sultanas	Ochratoxin A, lead, cadmium
Wild berries	Lead, cadmium
Others	Lead, cadmium
<b>Fruit – fresh or uncooked, frozen</b>	
Apples	Lead, cadmium
Apricots	Lead, cadmium
Avocados	Lead, cadmium
Bananas	Lead, cadmium
Bilberries	Lead, cadmium

<b>Commodity</b>	<b>Contaminant</b>
Blackberries	Lead, cadmium
Cherries	Lead, cadmium
Cranberries	Lead, cadmium
Currants (red, black or white)	Lead, cadmium
Dates	Lead, cadmium
Dewberries	Lead, cadmium
Figs	Lead, cadmium
Gooseberries	Lead, cadmium
Grapefruit	Lead, cadmium
Grapes	Lead, cadmium
Kiwi fruit	Lead, cadmium
Kumquats	Lead, cadmium
Lemons	Lead, cadmium
Limes	Lead, cadmium
Loganberries	Lead, cadmium
Lychees	Lead, cadmium
Mandarins (including clementines & other hybrids)	Lead, cadmium
Mangoes	Lead, cadmium
Olives	Lead, cadmium
Oranges	Lead, cadmium
Passion fruit	Lead, cadmium
Peaches	Lead, cadmium
Pears	Lead, cadmium
Pineapples	Lead, cadmium
Plums	Lead, cadmium
Pomegranates	Lead, cadmium
Pomelos	Lead, cadmium
Quinces	Lead, cadmium
Raspberries	Lead, cadmium
Strawberries	Lead, cadmium
Wild berries	Lead, cadmium
Others	Lead, cadmium

<b>Commodity</b>	<b>Contaminant</b>
<b>Fruit juices</b>	
Fruit juices	Patulin, lead
Grape juice and grape must	Ochratoxin A
Concentrated fruit juices (for direct consumption)	Patulin, lead,
<b>Fruit nectars</b>	
Fruit nectars (unfermented product obtained by addition of water and sugar to fruit juice or fruit purée)	Patulin, lead, cadmium
<b>Fungi</b>	
Fungi (cultivated )	Lead, cadmium
<b>Fresh herbs</b>	
Chervil	Cadmium
Chives	Cadmium
Parsley	Cadmium
Celery leaves	Cadmium
Others	Cadmium
<b>Hydrolysed vegetable protein</b>	
Hydrolysed vegetable protein	3-MCPD
<b>Legumes</b>	
Beans	Lead, cadmium
Groundnuts (Peanuts)	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ),
Peas	Lead, cadmium
Soybeans	Lead, cadmium
<b>Meat</b>	
Beef, kidney, liver, lamb, mutton, offal, pork, poultry meat	Lead, cadmium, dioxins, PAHs
Horsemeat,	Cadmium, PAHs
Farmed game	Dioxins, lead, cadmium,PAHs
<b>Mushrooms</b>	
Mushrooms (cultivated)	Lead, cadmium
<b>Nuts</b>	
Almonds	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Apricot kernels	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Areca nuts	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Brazil nuts	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )

<b>Commodity</b>	<b>Contaminant</b>
Cashew nuts	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Chestnuts	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Cobnuts	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Coconuts	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Cola nuts	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Filberts	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Groundnuts	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Hazelnuts	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Macadamia nuts	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Pecans	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Pine nuts	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> ),
Pistachios	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
Walnuts	Aflatoxin B <sub>1</sub> , aflatoxins (B <sub>1</sub> +B <sub>2</sub> +G <sub>1</sub> +G <sub>2</sub> )
<b>Offal</b>	
Horse offal	Lead, cadmium, dioxins, PAHs
Kidney (cattle, sheep, pig, poultry)	Lead, cadmium, dioxins, PAHs
Liver (cattle, sheep, pig, poultry)	Lead, cadmium, dioxins, PAHs
<b>Oils</b>	
Oils	Lead, cadmium, dioxins, PAHs
<b>Pulses</b>	
Beans	Lead, cadmium
Lentils	Lead, cadmium
Peas	Lead, cadmium
Others	Lead, cadmium
<b>Soy sauce</b>	
Soy sauce	3-MCPD, lead, cadmium



<b>Commodity</b>	<b>Contaminant</b>
Courgettes	Lead, cadmium
Cress	Lead, cadmium
Cucumbers	Lead, cadmium
Fennel	Lead, cadmium
Garlic	Lead, cadmium
Gherkins	Lead, cadmium
Horseradish	Lead, cadmium
Kale	Lead, cadmium
Kohlrabi	Lead, cadmium
Lamb's lettuce	Lead, cadmium
Leeks	Lead, cadmium
Lettuce	Nitrate, lead, cadmium
Melons	Lead, cadmium
Onions	Lead, cadmium
Parsley root	Lead, cadmium
Parsnips	Lead, cadmium
Peas	Lead, cadmium
Peppers	Lead, cadmium
Potatoes	Lead, cadmium
Radishes	Lead, cadmium
Rhubarb	Lead, cadmium
Salsify	Lead, cadmium
Scarole	Lead, cadmium
Shallots	Lead, cadmium
Spinach	Nitrate, lead, cadmium
Spring onions	Lead, cadmium
Squashes	Lead, cadmium
Sweetcorn	Lead, cadmium
Sweet potatoes	Lead, cadmium
Swedes	Lead, cadmium
Tomatoes	Lead, cadmium
Turnips	Lead, cadmium
Watercress	Lead, cadmium
Watermelons	Lead, cadmium
Witloof	Lead, cadmium
Yam	Lead, cadmium

Commodity	Contaminant
<b>Wines and other alcoholic drinks</b> Wines (including sparkling wine but excluding liqueur wines) Aromatised wine Aromatised wine-based drinks Aromatised wine-product cocktails Cider Fruit wines Perry	Lead, cadmium, ochratoxin A Lead, cadmium, ochratoxin A Lead, cadmium, ochratoxin A Lead, cadmium, ochratoxin A Patulin, lead, cadmium Lead, cadmium Lead, cadmium

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