EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR HEALTH AND FOOD SAFETY

Food and feed safety, innovation
Food processing technologies and novel foods

This document has been endorsed by the Standing Committee on Plants, Animals, Food and Feed, section Novel Food and Toxicological Safety of the Food Chain at the meeting on 21 April 2022.

This document has not been adopted by the European Commission. Any views expressed may therefore not be regarded as stating an official position of the Commission.

This document is intended to assist national authorities in the application of Commission Delegated Regulation (EU) 2022/931 and Commission Implementing Regulation (EU) 2022/932. Only the Court of Justice of the European Union is competent to authoritatively interpret Union law.

GUIDANCE ON THE IMPLEMENTATION OF THE RULES AND PRACTICAL ARRANGEMENTS FOR THE PERFORMANCE OF THE OFFICIAL CONTROLS AS REGARDS CONTAMINANTS IN FOOD

June 2023

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1) General guidance

- Member States may optionally include in their plans controls of other commodities which are important, for example based on the national consumption pattern, for which setting of MLs is expected or national limits are applied etc. (for example farmed and wild games; insects).
- In case that some analyses are planned to be done for example once per three years, this information with an appropriate justification must be included in the plan.
- In case that controls have not been performed for certain combination of contaminant or contaminant groups and commodity groups and therefore a justification has to be provided, it is sufficient to indicate it in the control plans with, e.g., this statement: "*No analysis have been performed for this combination as taking into account our risk analysis in the frame of risk-based controls*" or "*No combinations of contaminants and commodity for which an ML has been established have been identified that needs to be analysed based on this risk analysis*" etc.
- Composite products should be considered for the purpose of these Regulations (for the determination of control frequency and number of samples) as food of non-animal origin, the samples thereof are to be taken under the scope of the risk-based control plan for food placed on the market in the Union.
- Member States can follow this recommendation for the determination of a lot at slaughterhouse level in case of bovine, ovine, caprine, porcine and equine animals: If there are more than 10 animals coming from the same herd which are slaughtered at one moment, they can be considered as a lot (aggregated sample is to be analysed). Otherwise, each animal is to be considered as a lot and should be analysed as one sample.

2) Sampling and analysis – legal requirements

Official controls as part of the MANCP for contaminants in food should comply with the applicable requirements concerning sampling and analysis, including the following provisions:

- Commission Directive 2002/63/EC establishing Community methods of sampling for the official control of pesticide residues in and on products of plant and animal origin and repealing Directive 79/700/EEC
- Commission Regulation (EC) No 401/2006 laying down the methods of sampling and analysis for the official control of the levels of mycotoxins in foodstuffs
- Commission Regulation (EC) No 1882/2006 laying down methods of sampling and analysis for the official control of the levels of nitrates in certain foodstuffs
- Commission Regulation (EC) No 333/2007 laying down the methods of sampling and analysis for the control of the levels of trace elements and processing contaminants in foodstuffs (could be used also for analysis of mercury in food in accordance with Regulation (EC) No 396/2005, see point 4)
- Commission Regulation (EU) 2015/705 laying down methods of sampling and performance criteria for the methods of analysis for the official control of the levels of erucic acid in foodstuffs
- Commission Regulation (EU) 2017/644 laying down methods of sampling and analysis for the control of levels of dioxins, dioxin-like PCBs and non-dioxin-like PCBs in certain foodstuffs

- Commission Implementing Regulation (EU) 2022/1428 laying down methods of sampling and analysis for the control of perfluoroalkyl substances in certain foodstuffs

3) Control frequency for food of animal origin

Additional provisions are set in Annex I to Commission Implementing Regulation (EU) 2022/932 for products of animal origin as regards the mandatory control frequencies. For better understanding of these provisions, follow this example: For the category Unprocessed bovine meat (including edible offal), the control frequency is minimum 0.02% of the total number of slaughtered animals (the table of Annex I to Implementing Regulation (EU) 2022/932). In 2019, the total number of slaughtered animals was 680 528, therefore number of samples for this category should be 136 samples. The additional provision is that 'metals' should be controlled each year in minimum 10% of the samples taken according to the minimum control frequency set in Annex I to Implementing Regulation (EU) 2022/932 for the listed species or product. At minimum, 14 samples should be analysed for metals. The rest, 122 samples should be analysed for halogenated persistent organic pollutants, metals and other contaminants (according to the table in Annex I to Commission Delegated Regulation (EU) 2022/931), the exact number for each contaminants group depends on the decision of the Member State.

4) Multiple analyses

- The Member States can decide to do multiple analyses on the base of the control plan and/or on the base of the legal requirements for sampling, transport, storage and sample preparation.
- In case of multiple analysis, contaminants controlled should be relevant for the matrix.
- In case of multiple analysis, sample can be analysed for the presence of more contaminants that belong to the same "contaminants group" (for example mycotoxins: aflatoxin B_1, sum of B_1, B_2, G_1 and G_2 and ochratoxin A). In that case, the sample is counted as one sample (for controls on mycotoxin).
- In case of multiple analysis, sample can be analysed for different groups of contaminants (for example for heavy metals, dioxins and mycotoxins). In that case, the sample is counted as one sample for each group of contaminants (that means as the contribution to required control frequency of each group of contaminants). However, the sampling should be carried out in accordance with the strictest sampling regime applied for a certain contaminant.
- The material in the sampling devices and bottles/boxes should be considered in order not to contaminate the samples according to the specific requirements, in the event of simultaneous sampling for more than one group of contaminants.
- When sampling for more than one contaminant group, the aggregate sample should exceed the minimum weight of 1 kg, especially when bones and other non-edible parts are included in the sample. The homogenate of the aggregate sample needs to be sufficiently large to enable the operator to use several laboratories for analysing different contaminant groups.
- Legal requirements for sampling should comply with minimum requirements.
- The main criteria which determine the stricter sampling requirements:
    - number of incremental samples to be taken;
    - size of aggregate sample.

Example A: Legal requirements for sampling for analysis of mercury and other metals in packaged meat. If the sampling is performed according to Regulation (EC) No 333/2007, this can be applied also for the control of mercury in meat.

Commission Directive 2002/63/EC establishing Community methods of sampling for the official control of pesticide residues in and on products of plant and animal origin and repealing Directive 79/700/EEC

Packaged materials: The smallest discrete packages should be taken as units.

Minimum number of primary samples to be taken from a lot: (for meat and poultry) 1

Description of primary samples and minimum size of laboratory samples:
Mammal meat parts, loose fresh/chilled/frozen, packaged or otherwise (Quarters, chops, steaks, shoulders) - Whole unit(s), or a portion of a large unit; 0,5 kg after removal of bone

For meat and poultry, the primary sample is considered to be equivalent to the bulk/aggregate sample.

Commission Regulation (EC) No 333/2007 laying down the methods of sampling and analysis for the control of the levels of trace elements and processing contaminants in foodstuffs

Number of packages or units (incremental samples) which shall be taken to form the aggregate sample if the lot or sublot consists of individual packages or units

Number of packages or units in the lot/sublot	Number of packages or units to be taken
≤ 25	at least 1 package or unit
26-100	about 5 %, at least 2 packages or units
> 100	about 5 %, at maximum 10 packages or units

The aggregate sample shall be at least 1 kg or 1 litre except where it is not possible, e.g. when the sample consists of 1 package or unit.

Example B: Legal requirements for sampling for analysis of mercury and other metals in apples, weight of lot is 40 kg. In the case of analysis of mercury in apples, if the sampling is performed according to Directive 2002/63/EC, this can be applied also for the control of other metals in apples.

Commission Directive 2002/63/EC establishing Community methods of sampling for the official control of pesticide residues in and on products of plant and animal origin and repealing Directive 79/700/EEC

Units - each whole fruit should form a unit
Nature of primary sample to be taken: whole units (medium sized fresh products, units generally 25 to 250 g)

The number of units required for a primary sample should be determined by the minimum size and number of laboratory samples required.
Minimum number of primary samples (an equivalent to the incremental sample) to be taken from the lot (weight of lot < 50 kg) 3

Minimum size of each laboratory sample (an equivalent to the aggregate sample): 1 kg (at least 10 units) (= 10 apples)

Commission Regulation (EC) No 333/2007 laying down the methods of sampling and analysis for the control of the levels of trace elements and processing contaminants in foodstuffs

The aggregate sample shall be at least 1 kg or 1 litre except where it is not possible, e.g. when the sample consists of 1 package or unit.

The weight/volume of an incremental sample shall be at least 100 grams or 100 millilitres, resulting in an aggregate sample of at least about 1 kg or 1 litre.

Minimum number of incremental samples to be taken from the lot or sublot

Weight or volume of lot/sublot (in kg or litre)	Minimum number of incremental samples to be taken
< 50	3

Example C: Legal requirements for sampling for analysis of heavy metals and dioxins in packaged meat. Sampling requirements are the same; samples could be taken for heavy metals and dioxins using the same procedure.

Commission Regulation (EC) No 333/2007 laying down the methods of sampling and analysis for the control of the levels of trace elements and processing contaminants in foodstuffs

Number of packages or units (incremental samples) which shall be taken to form the aggregate sample if the lot or sublot consists of individual packages or units

Number of packages or units in the lot/sublot	Number of packages or units to be taken
≤ 25	at least 1 package or unit
26-100	about 5 %, at least 2 packages or units
> 100	about 5 %, at maximum 10 packages or units

(The aggregate sample shall be at least 1 kg or 1 litre except where it is not possible, e.g. when the sample consists of 1 package or unit.)

Commission Regulation (EU) 2017/644 laying down methods of sampling and analysis for the control of levels of dioxins, dioxin-like PCBs and non-dioxin-like PCBs in certain foodstuffs

Number of packages or units (incremental samples) which shall be taken to form the aggregate sample if the lot or sublot consists of individual packages or units

Number of packages or units in the lot/sublot	Number of packages or units to be taken
1 to 25	at least 1 package or unit
26 to 100	about 5 %, at least 2 packages or units
> 100	about 5 %, at maximum 10 packages or units

(The aggregate sample shall be at least 1 kg unless not practical, e.g. when a single package has been sampled or when the product has a very high commercial value.)

Example D: Legal requirements for sampling for analysis of 3-MCPD esters and mycotoxins in vegetable oil in bottles. In this concrete case, the stricter rules depend on the number of packages in the lot/sublot and the weight/volume of lot. For an 80 litre lot of 80 bottles of 1 litre, the sampling procedure according to Regulation (EC) No 401/2006 has to be followed while for a 80 litre lot of 160 bottles of 0.5 litre, the sampling procedure according to Regulation (EC) No 333/2007 has to be followed. For a 120 litre lot of 120 bottles of 1 litre, the sampling procedure according to Regulation (EC) No 333/2007. As in both sampling procedures, the aggregate sample must be minimal 1 kg, it is the number of incremental samples that determines the sampling procedure to be applied. For lots consisting of more than 200 packages and are at least 500 kg, both sampling procedures are equivalent.

Commission Regulation (EC) No 333/2007 laying down the methods of sampling and analysis for the control of the levels of trace elements and processing contaminants in foodstuffs

Number of packages or units (incremental samples) which shall be taken to form the aggregate sample if the lot or sublot consists of individual packages or units

Number of packages or units in the lot/sublot	Number of packages or units to be taken

≤ 25	at least 1 package or unit
26-100	about 5 %, at least 2 packages or units
> 100	about 5 %, at maximum 10 packages or units

(The aggregate sample shall be at least 1 kg or 1 litre except where it is not possible, e.g. when the sample consists of 1 package or unit.)

Commission Regulation (EC) No 401/2006 laying down the methods of sampling and analysis for the official control of the levels of mycotoxins in foodstuffs

Minimum number of incremental samples to be taken from the lot

Weight of lot (in kg)/Volume of lot (in litres)	Minimum number of incremental samples to be taken
≤ 50	3
> 50 to 500	5
> 500	10

(The weight of the incremental sample shall be at least about 100 grams (ml) , resulting in an aggregate sample of at least 1 kg (litre), i.e. in case only 3 incremental samples need to be taken each incremental sample must be about 350 grams (ml) .)

Example E: Legal requirements for sampling for analysis of metals (lead) and mycotoxins in cereals and cereal products. Sampling requirements are stricter in the case of mycotoxins, therefore for simultaneous sampling procedure, requirements in accordance with Regulation (EC) No 401/2006 should be followed.

Commission Regulation (EC) No 333/2007 laying down the methods of sampling and analysis for the control of the levels of trace elements and processing contaminants in foodstuffs

Lot weight (tonne)	Weight or number of sublots	Weight or volume of lot/ sublot (in kg or litre)	Minimum number of incremental samples to be taken
< 100	—	> 500	10

The incremental samples shall be of similar weight/volume. The weight/volume of an incremental sample shall be at least 100 grams or 100 millilitres, resulting in an aggregate sample of at least about 1 kg or 1 litre.

Commission Regulation (EC) No 401/2006 laying down the methods of sampling and analysis for the official control of the levels of mycotoxins in foodstuffs

Lot weight (tonne)	Weight of sublots	Number of incremental samples	Aggregate sample weight (kg)
≥ 50 and ≤ 300	100 tonnes	100	10

The weight of the incremental sample shall be about 100 grams.

- Guidance levels (minimum number of samples) for national control plan for food of non-animal origin:

Member state	Minimum number of samples*
DE, ES, FR, IT, PL	2000
NL, RO	900
BE, CZ, EL, HU, AT, PT, SE	500
BG, DK, IE, SK, FI	250
EE, HR, CY, LV, LT, LU, MT, SI; UK (NI)**	100

* A sample can be analysed for different groups of contaminants. The sample is then counted for each group of contaminants for reaching the minimum number of samples.

** In accordance with the Agreement on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community, and in

particular Article 5(4) of the Protocol on Ireland / Northern Ireland in conjunction with Annex 2 to that Protocol, for the purposes of this Regulation, references to Member States include the United Kingdom in respect of Northern Ireland.

- Samples taken under the scope of other control plans (e.g. on pharmacologically active substances and residues thereof, on pesticide residues) that are relevant for analysis on contaminants, can also be used for controls on contaminants if the sampling and handling are operated according to relevant legal requirements. Such samples contribute to the minimal control frequencies as set in Implementing Regulation (EU) 2022/932.

5) Criteria for risk-based control plan for food of animal origin entering the Union – information available on insufficient guarantees regarding the compliance with the EU legislation (according to point 3(e) of Annex I to Delegated Regulation (EU) 2022/931)

- Insufficient amendments requested by EU as outcomes from audits in third countries
- Not addressing of non-compliances in an appropriate timeframe
- Findings of relevant stakeholders (FBO, NGO's etc.) on non-compliances
- Stakeholders initiatives

6) Templates for the control plans

- Member States have to use two templates (xls and doc) which are available at: https://food.ec.europa.eu/safety/chemical-safety/contaminants/sampling-and-analysis_en

7) Submission of the control plans

- For current year by 31 March of each year at the latest, to the functional mailbox SANTE-MS-CONTAM-PLANS@ec.europa.eu

8) Evaluation of the control plans

- The Commission shall evaluate the control plans and communicate its evaluation to each Member State, where needed

9) Submission of the report (by 31 August of each year)

- Commission Implementing Regulation (EU) 2019/723 laying down rules for the application of Regulation (EU) 2017/625 of the European Parliament and of the Council as regards the standard model form to be used in the annual reports submitted by Member States

10) Sending data from the previous year to EFSA

- By 30 June of each year
- Tools for reporting Chemical Contaminants Occurrence Data in the SSD2 data model format
- https://doi.org/10.5281/zenodo.3714966; please check updates regularly
- https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/sp.efsa.2022.EN-7132; please check updates regularly
- Support: data.collection@efsa.europa.eu

11) Contaminants to be covered by the MANCP for contaminants in food notably include substances covered by the following provisions:

- Commission Regulation (EU) 2023/915 of 25 April 2023 on maximum levels for certain contaminants in food and repealing Regulation (EC) No 1881/2006

- Regulation (EU) 2019/787 of the European Parliament and of the Council on the definition, description, presentation and labelling of spirit drinks, the use of the names of spirit drinks in the presentation and labelling of other foodstuffs, the protection of geographical indications for spirit drinks, the use of ethyl alcohol and distillates of agricultural origin in alcoholic beverages
    - The maximum hydrocyanic acid content shall be 7 grams per hectolitre of 100 % vol. alcohol* in the case of stone-fruit marc spirit and in the case of stone-fruit spirits.
      *It is necessary to compare this maximum level with the maximum level set by Regulation (EC) No 1334/2008. The strictest level shall be applied.
      For example:
      a) Stone-fruit spirit containing 40% vol. alcohol → **ML 28 mg/kg (Reg. (EU) 2019/787)** and not 35 mg/kg (Reg. (EC) No 1334/2008)
      b) Stone-fruit spirit containing 55% vol. alcohol → **ML 35 mg/kg (Reg. (EC) No 1334/2008)** and not 38.5 mg/kg (Reg. (EU) 2019/787)

- Council Directive 2001/110/EC relating to honey
    - hydroxymethylfurfural content (HMF) determined after processing and blending

in general, except baker's honey	not more than 40 mg/kg
honeys of declared origin from regions with tropical climate and blends of these honeys	not more than 80 mg/kg

- Directive (EU) 2015/2203 of the European Parliament and of the Council on the approximation of the laws of the Member States relating to caseins and caseinates intended for human consumption
    - Maximum lead content in edible acid caseins, in edible rennet caseins and in edible caseinates: 0.75 mg/kg in edible acid caseins.

- Regulation (EC) No 853/2004 of the European Parliament and of the Council laying down specific hygiene rules for food of animal origin
    - FBOs must ensure that gelatine and collagen (finished products) comply with the contaminant limits set out in the following table:

Contaminant	**Limit**

Arsenic	1 ppm
Lead	5 ppm
Cadmium	0.5 ppm
Mercury	0.15 ppm

- Commission Regulation (EU) No 231/2012 laying down specifications for food additives listed in Annexes II and III to Regulation (EC) No 1333/2008 of the European Parliament and of the Council
    - arsenic
    - lead
    - mercury
    - cadmium
    - benzo(a)pyrene
    - 3-MCPD and 3-MCPD esters
    - glycidyl esters
    - erucic acid

- Commission Implementing Regulation (EU) No 1321/2013 establishing the Union list of authorised smoke flavouring primary products for use as such in or on foods and/or for the production of derived smoke flavourings
    - Purity criteria in authorised smoke flavouring primary products:

Lead	< 5.0 mg/kg
Arsenic	< 3.0 mg/kg
Cadmium	< 1.0 mg/kg
Mercury	< 1.0 mg/kg

- Commission Implementing Regulation (EU) 2017/2470 establishing the Union list of novel foods in accordance with Regulation (EU) 2015/2283 of the European Parliament and of the Council on novel foods
    - Lead
    - Arsenic
    - Cadmium
    - Mercury
    - Pyrrolizidine alkaloids
    - Ochratoxin A
    - Total aflatoxins (sum of B_1, B_2, G_1, G_2)

- Regulation (EC) No 1334/2008 of the European Parliament and of the Council on flavourings and certain food ingredients with flavouring properties for use in and on foods
    - Maximum level of hydrocyanic acid content in:

Nougat, marzipan or its substitutes or similar products	50 mg/kg
Canned stone fruits	5 mg/kg
Alcoholic beverages	35 mg/kg*

*It is necessary to compare this maximum level with the maximum level set by Regulation (EU) 2019/787, which is based on the content of alcohol in spirit. The strictest level shall be applied. For example:

a) Stone-fruit spirit containing 40% vol. alcohol → **ML 28 mg/kg (Reg. (EU) 2019/787)** and not 35 mg/kg (Reg. (EC) No 1334/2008)
b) Stone-fruit spirit containing 55% vol. alcohol → **ML 35 mg/kg (Reg. (EC) No 1334/2008)** and not 38.5 mg/kg (Reg. (EU) 2019/787)

- PAHs in pyroligneous distillate:

Benzopyrene	less than 1 µg/l
Benz(a)anthra-cene	less than 2 µg/l

- Commission Implementing Regulation (EU) 2020/1158 on the conditions governing imports of food and feed originating in third countries following the accident at the Chernobyl nuclear power station
  - The products shall comply with the following accumulated maximum permitted levels of radioactive contamination in terms of ^{137}caesium
    - (a) 370 Bq/kg for milk and milk products and for food for infants and young children as defined in Article 2(2)(a) and (b) of Regulation (EU) No 609/2013;
    - (b) 600 Bq/kg for all other products.

- Commission Implementing Regulation (EU) 2021/1533 imposing special conditions governing the import of feed and food originating in or dispatched from Japan following the accident at the Fukushima nuclear power station and repealing Implementing Regulation (EU) 2016/6
  - Maximum levels for sum of ^{134}caesium and ^{137}caesium of food (Bq/kg) originating from Japan as provided for in the Japanese legislation

Foods for infants and young children	50
Milk and milk-based drinks	50
Mineral water and similar drinks and tea brewed from unfermented leaves	10
Other food	100

For dried products that are intended to be consumed in a reconstituted state, the maximum level applies to the reconstituted product as ready for consumption.

For dried mushrooms a reconstitution factor of 5 is of application.

For tea, the maximum level applies to the infusion brewed from unfermented tea leaves. The processing factor for dried tea is 50, and therefore a maximum level of 500 Bq/kg on dried tea leaves ensures that the level in the brewed tea does not exceed the maximum level of 10 Bq/kg.

- Commission Regulation (EU) 2017/2158 establishing mitigation measures and benchmark levels for the reduction of the presence of acrylamide in food

Food	**Benchmark level (µg/kg)**
French fries (ready-to-eat)	500
Potato crisps from fresh potatoes and from potato dough Potato-based crackers Other potato products from potato dough	750
Soft bread (a) Wheat based bread (b) Soft bread other than wheat based bread	 50 100
Breakfast cereals (excl. porridge) - bran products and whole grain cereals, gun puffed grain	 300

Food	Benchmark level (µg/kg)
- wheat and rye based products (*) - maize, oat, spelt, barley and rice based products (*) (*) non-whole grain and/or non-bran based cereals. The cereal present in the largest quantity determines the category.	300 150
Biscuits and wafers Crackers with the exception of potato based crackers Crispbread Ginger bread Products similar to the other products in this category	350 400 350 800 300
Roast coffee	400
Instant (soluble) coffee	850
Coffee substitutes (a) coffee substitutes exclusively from cereals (b) coffee substitutes from a mixture of cereals and chicory (c) coffee substitutes exclusively from chicory (**) the benchmark level to be applied to coffee substitutes from a mixture of cereals and chicory takes into account the relative proportion of these ingredients in the final product.	 500 (**) 4000
Baby foods, processed cereal based foods for infants and young children excluding biscuits and rusks([1]),	40
Biscuits and rusks for infants and young children([2])	150

- Commission Recommendation (EU) 2022/1431 of 24 August 2022 on the monitoring of perfluoroalkyl substances in food
    - Member States should monitor the presence of PFASs (PFOS, PFOA, PFNA, PFHxS), compounds similar to PFAS (PFBA, PFPeA, PFHxA, PFHpA, PFDA, PFUnDA, PFDoDA, PFTrDA, PFTeDA, PFBS, PFPS, PFHpS, PFNS, PFDS, PFUnDS, PFDoDS, PFTrDS, FOSA) and emerging PFASs (the acid form of F53B, the acid form of GenX, the acid form of ADONA, Capstone A, Capstone B, fluorotelomer alcohols and sulfonates) in a wide variety of foodstuffs reflecting consumption habits, including fruits, vegetables, starchy roots and tubers, seaweed, cereals, nuts, oilseeds, food for infants and young children, food of animal origin, non-alcoholic drinks, wine and beer.
    - Further investigation of the causes of the contamination should be carried out when the following indicative levels are exceeded:

Food	PFOS (µg/kg)	PFOA (µg/kg)	PFNA (µg/kg)	PFHxS (µg/kg)
Fruits, vegetables (except wild fungi), starchy roots and tubers	0,010	0,010	0,005	0,015
Wild fungi	1,5	0,010	0,005	0,015
Milk	0,020	0,010	0,050	0,060

([1]) As defined in Regulation (EU) No 609/2013 of the European Parliament and of the Council of 12 June 2013 on food intended for infants and young children, food for special medical purposes, and total diet replacement for weight control and repealing Council Directive 92/52/EEC, Commission Directives 96/8/EC, 1999/21/EC, 2006/125/EC and 2006/141/EC, Directive 2009/39/EC of the European Parliament and of the Council and Commission Regulations (EC) No 41/2009 and (EC) No 953/2009 (OJ L 181, 29.6.2013, p. 35).

([2]) As defined in Regulation (EU) No 609/2013 referred to above.

Baby food	0,050	0,050	0,050	0,050

- Commission Recommendation (EU) 2022/561 of 6 April 2022 on monitoring the presence of glycoalkaloids in potatoes and potato-derived products
    - Member States should monitor glycoalkaloids α-solanine and α-chaconine in potatoes and potato products, including the degradation products β- and γ- solanine and chaconine and the aglycon solanidine, in particular in processed potato products, if possible.
    - Member States, with the active involvement of food business operators, should carry out investigations to identify the factors leading to levels above the indicative level of 100 mg/kg as sum of α-solanine and α-chaconine in potatoes and processed potato products.

- Commission Recommendation (EU) 2022/553 of 5 April 2022 on monitoring the presence of Alternaria toxins in food
    - Indicative level for alternariol, alternariol monomethyl ether and tenuazonic acid in certain foods, above which investigations should be performed, on the factors leading to the presence of Alternaria toxins or on the effect of food processing.

Food	**Alternariol (AOH) (µg/kg)**	**Alternariol monomethyl ether (AME) (µg/kg)**	**Tenuazonic acid (TeA) (µg/kg)**
Processed tomato products	10	5	500
Paprika powder	-	-	10000
Sesame seeds	30	30	100
Sunflower seeds	30	30	1000
Sunflower oil	10	10	100
Tree nuts	-	-	100
Dried figs	-	-	1000
Cereal based foods for infants and young children	2	2	500

- Commission Recommendation (EU) 2016/22 on the prevention and reduction of ethyl carbamate contamination in stone fruit spirits and stone fruit marc spirits
    - Member States ensure that all the appropriate measures are taken to achieve levels of ethyl carbamate in stone fruit spirits and stone fruit marc spirits as low as possible with the aim to achieve the level of 1 mg/l as a target.

- Commission Recommendation on the reduction of the presence of dioxins, furans and PCBs in feed and food (2013/711/EU)

Food	**Action level for dioxins + furans (WHO-TEQ) (*)**	**Action level for dioxin-like PCBs (WHO-TEQ) (*)**
Meat and meat products (excluding edible offal) (**) of the following animals		
— bovine animals and sheep	1,75 pg/g fat (***)	1,75 pg/g fat (***)

— poultry — pigs Mixed fats	1,25 pg/g fat (***) 0,75 pg/g fat (***) 1,00 pg/g fat (***)	0,75 pg/g fat (***) 0,50 pg/g fat (***) 0,75 pg/g fat (***)
Muscle meat of farmed fish and farmed fishery products	1,50 pg/g wet weight	2,50 pg/g wet weight
Raw milk (**) and dairy products, including butter fat	1,75 pg/g fat (***)	2,00 pg/g fat (***)
Hen eggs and egg products (**)	1,75 pg/g fat (***)	1,75 pg/g fat (***)
Clays as food supplement	0,50 pg/g wet weight	0,50 pg/g wet weight
Cereals and oilseeds	0,50 pg/g wet weight	0,35 pg/g wet weight
Fruits and vegetables (including fresh herbs) (****)	0,30 pg/g wet weight	0,10 pg/g wet weight

(*) 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 of quantification.

(**) Foodstuffs listed 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).

(***) The action levels are not applicable for food products containing < 2 % fat.

(****) For dried fruits and dried vegetables (including dried herbs), Article 2 of Regulation (EC) No 1881/2006 is applicable. For dried herbs, a concentration factor as the consequence of drying of 7 has to be taken into account.

- Commission Recommendation on the presence of T-2 and HT-2 toxin in cereals and cereal products (2013/165/EU)

	Indicative levels for the sum of T-2 and HT-2 (µg/kg) from which onwards /above which investigations should be performed, certainly in case of repetitive findings
1. Unprocessed cereals (***)	
1.1. barley (including malting barley) and maize	200
1.2. oats (with husk)	1000
1.3. wheat, rye and other cereals	100
2. Cereal grains for direct human consumption (****)	
2.1. oats	200
2.2. maize	100
2.3. other cereals	50
3. Cereal products for human consumption	
3.1. oat bran and flaked oats	200

3.2. cereal bran except oat bran, oat milling products other than oat bran and flaked oats, and maize milling products	100
3.3. other cereal milling products	50
3.4. breakfast cereals including formed cereal flakes	75
3.5. bread (including small bakery wares), pastries, biscuits, cereal snacks, pasta	25
3.6. cereal-based foods for infants and young children	15

The levels referred to in this Annex are indicative levels above which, certainly in the case of repetitive findings, investigations should be performed on the factors leading to the presence of T- and HT-2 toxin or on the effects of feed and food processing. The indicative levels are based on the occurrence data available in the EFSA database as presented in the EFSA opinion. The indicative levels are not feed and food safety levels.

For the purpose of this Recommendation rice is not included in cereals and rice products are not included in cereal products.

(***) Unprocessed cereals are cereals which have not undergone any physical or thermal treatment other than drying, cleaning and sorting.

(****) Cereal grains for direct human consumption are cereal grains which have undergone drying, cleaning, de-husking and sorting processes and on which no further cleaning and sorting processes will be performed before their further processing in the food chain.

- Member States may also include the following outcomes from Standing Committee which include the following values agreed by the Member States
  - Minutes from the meeting of Standing Committee on Plants, Animals, Food and Feed Section Novel Food and Toxicological Safety of the Food Chain held on 17 September 2018
    - The Committee agreed on the following reference values for intra EU trade:

	DEET (CAS 134-62-3) (N, N-Diethyl-meta-toluamide)	Icaridin (CAS 119515-38-71) (1-(1-methylpropoxycarbonyl)-2-(2hydroxyethyl)piperidine)
Pine nut kernels	0.5 mg/kg	
Berries and small fruits except grapes	0.1 mg/kg	
Wild fungi	1.0 mg/kg	0.05 mg/kg
Herbal infusions from flowers and leaves	0.3 mg/kg	0.5 mg/kg
Spices	0.5 mg/kg	

  - Minutes from the meeting of Standing Committee on Plants, Animals, Food and Feed Section Novel Food and Toxicological Safety of the Food Chain held on 19 October 2022
    - The Member States agreed to withdraw and, if necessary, to recall products from the market, when the sum of the concentrations of MOAH in food are at or above the following maximum LOQs:
      - 0.5 mg/kg for dry foods with a low fat/oil content (≤ 4 % fat/oil)
      - 1 mg/kg for foods with a higher fat/oil content (> 4 % fat/oil, ≤50 % fat/oil)
      - 2 mg/kg for fats/oils or foods with >50% fat/oil
    - The total MOAH concentration covers the fraction of MOAH ≥C10 to ≤C50.

- Regulation (EC) No 396/2005 of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC
    - Mercury

- Commission Directive 2006/125/EC of 5 December 2006 on processed cereal-based foods and baby foods for infants and young children
    - Processed cereal-based foods and baby foods shall not contain residues of individual pesticides (mercury compounds) at levels exceeding 0.01 mg/kg.

- Commission Delegated Regulation (EU) 2016/127 supplementing Regulation (EU) No 609/2013 of the European Parliament and of the Council as regards the specific compositional and information requirements for infant formula and follow-on formula and as regards requirements on information relating to infant and young child feeding
    - Infant formula and follow-on formula shall not contain residues (mercury compound) at levels exceeding 0.01 mg/kg per active substance.
    - The erucic acid content in infant formulae and follow-on formulae shall not exceed 0.4 % of the total fat content.

- Commission Delegated Regulation (EU) 2016/128 supplementing Regulation (EU) No 609/2013 of the European Parliament and of the Council as regards the specific compositional and information requirements for food for special medical purposes
    - Food for special medical purposes developed to satisfy the nutritional requirements of infants and young children shall not contain residues (mercury compounds) at levels exceeding 0.01 mg/kg per active substance.