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ANNEXES 1 to 2

## ANNEXES

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**COMMENTS TO BE SENT BY 22 AUGUST 2021 TO  
Ivana.POUSTKOVA@ec.europa.eu with copy to Frans.VERSTRAETE@ec.europa.eu**

# ANNEX I Rev1

## Maximum levels for certain contaminants in food<sup>(1)</sup>

<b>1</b>	<b>Mycotoxins</b>				
<b>1.1</b>	<b>Aflatoxins</b>	<b>Maximum levels (µg/kg)</b>			<b>Remarks</b>
		<b>B<sub>1</sub></b>	<b>Sum of B<sub>1</sub>, B<sub>2</sub>, G<sub>1</sub> and G<sub>2</sub></b>	<b>M<sub>1</sub></b>	For the sum of aflatoxins, lower bound concentrations are calculated on the assumption that all the values below the limit of quantification are zero.
1.1.1	Dried fruit to be subjected to sorting, or other physical treatment, before human consumption or use as an ingredient in food except products listed in 1.1.3	5,0	10,0	-	
1.1.2	Dried fruit and processed products thereof, intended for direct human consumption or use as an ingredient in food except products listed in 1.1.3	2,0	4,0	-	In case derived/processed products thereof are derived/processed solely or almost solely from the dried fruit concerned, the maximum levels as established for the corresponding dried fruit apply also to the derived/processed products. In other cases, Article 2(1) and 2(2) apply for the derived/processed products.
1.1.3	Dried figs	6,0	10,0	-	In case derived/processed products thereof are derived/processed solely or almost solely from the figs concerned, the maximum levels as established for the corresponding figs apply also to the derived/processed products. In other cases, Article 2(1) and 2(2) apply for the derived/processed products.

1.1.4	Groundnuts (peanuts) and other oilseeds, to be subjected to sorting, or other physical treatment, before human consumption or use as an ingredient in food	8,0	15,0	-	<p>Except groundnuts (peanuts) and other oilseeds for crushing for refined vegetable oil production</p> <p>The maximum levels refer to the edible part of groundnuts (peanuts). If groundnuts (peanuts) 'in shell' are analysed, it is assumed when calculating the aflatoxin content all the contamination is on the edible part.</p>
1.1.5	Groundnuts (peanuts) and other oilseeds and processed products thereof, intended for direct human consumption or use as an ingredient in food	2,0	4,0	-	<p>Except crude vegetable oils destined for refining and refined vegetable oils</p> <p>The maximum levels refer to the edible part of groundnuts (peanuts). If groundnuts (peanuts) 'in shell' are analysed, it is assumed when calculating the aflatoxin content all the contamination is on the edible part.</p>
1.1.6	Tree nuts to be subjected to sorting, or other physical treatment, before human consumption or use as an ingredient in food except products listed in 1.1.8 and 1.1.10	5,0	10,0	-	<p>The maximum levels refer to the edible part of tree nuts. If tree nuts 'in shell' are analysed, it is assumed when calculating the aflatoxin content all the contamination is on the edible part.</p>
1.1.7	Tree nuts and processed products thereof, intended for direct human consumption or use as an ingredient in food except products listed in 1.1.9 and 1.1.11	2,0	4,0	-	<p>The maximum levels refer to the edible part of tree nuts. If tree nuts 'in shell' are analysed, it is assumed when calculating the aflatoxin content all the contamination is on the edible part.</p> <p>In case derived/processed products thereof are derived/processed solely or almost solely from the tree nuts concerned, the maximum levels as established for the corresponding tree nuts apply also to the derived/processed products. In other cases, Article 2(1) and 2(2) apply for the derived/processed products.</p>

1.1.8	Almonds, pistachios and apricot kernels to be subjected to sorting, or other physical treatment, before human consumption or use as an ingredient in food	12,0	15,0	-	The maximum levels refer to the edible part of tree nuts. If tree nuts 'in shell' are analysed, it is assumed when calculating the aflatoxin content all the contamination is on the edible part.
1.1.9	Almonds, pistachios and apricot kernels, intended for direct human consumption or use as an ingredient in food	8,0	10,0	-	<p>The maximum levels refer to the edible part of tree nuts. If tree nuts 'in shell' are analysed, it is assumed when calculating the aflatoxin content all the contamination is on the edible part.</p> <p>In case derived/processed products thereof are derived/processed solely or almost solely from the tree nuts concerned, the maximum levels as established for the corresponding tree nuts apply also to the derived/processed products. In other cases, Article 2(1) and 2(2) apply for the derived/processed products.</p>
1.1.10	Hazelnuts and Brazil nuts, to be subjected to sorting, or other physical treatment, before human consumption or use as an ingredient in food	8,0	15,0	-	The maximum levels refer to the edible part of hazelnuts and Brazil nuts. If hazelnuts 'in shell' are analysed, it is assumed when calculating the aflatoxin content all the contamination is on the edible part.

1.1.11	Hazelnuts and Brazil nuts, intended for direct human consumption or use as an ingredient in food	5,0	10,0	-	<p>The maximum levels refer to the edible part of hazelnuts and Brazil nuts. If hazelnuts ‘in shell’ are analysed, it is assumed when calculating the aflatoxin content all the contamination is on the edible part.</p> <p>In case derived/processed products thereof are derived/processed solely or almost solely from the tree nuts concerned, the maximum levels as established for the corresponding tree nuts apply also to the derived/processed products. In other cases, Article 2(1) and 2(2) apply for the derived/processed products.</p>
1.1.12	Cereals and products derived from cereals except products listed in 1.1.13, 1.1.17 and 1.1.18	2,0	4,0	-	<p>Including processed cereal products</p> <p>Products derived from cereals relate to products derived solely (or exclusively) or almost solely (or exclusively) from cereals.</p>
1.1.13	Maize and rice to be subjected to sorting or other physical treatment before human consumption or use as an ingredient in food	5,0	10,0	-	
1.1.14	<p>Following spices: <i>Capsicum</i> spp. whole or ground, including chillies, chilli powder, cayenne and paprika), pepper (fruits of <i>Piper</i> spp, including white and black pepper), nutmeg (<i>Myristica fragrans</i>), ginger (<i>Zingiber officinale</i>) and turmeric (<i>Curcuma longa</i>).</p> <p>Mixtures of spices containing one or more of the abovementioned spices</p>	5,0	10,0	-	

1.1.15	Raw milk <sup>(2)</sup> , heat-treated milk and milk for the manufacture of milk-based products	-	-	0,050	
1.1.16	Infant formulae, follow-on formulae <sup>(3)</sup> and young-child formulae <sup>(4)</sup>	-	-	0,025	The maximum level applies to the products ready to use (placed on the market as such or after reconstitution as instructed by the manufacturer).
1.1.17	Processed cereal-based food for infants and young children and baby food <sup>(4)</sup>	0,10	-	-	The maximum level applies to the dry matter of the product as placed on the market. The dry matter is determined in accordance with Regulation (EC) No 401/2006.
1.1.18	Food for special medical purposes intended for infants and young children <sup>(4)</sup>	0,10	-	0,025	The maximum level refers in the case of milk, milk products and similar products to the products ready to use (placed on the market as such or reconstituted as instructed by the manufacturer) and in the case of products other than milk, milk products and similar products to the dry matter. The dry matter is determined in accordance with Regulation (EC) No 401/2006.
<b>1.2</b>	<b>Ochratoxin A</b>	<b>Maximum levels (µg/kg)</b>			<b>Remarks</b>
1.2.1	Dried vine fruit (currants, raisins and sultanas)	10,0			
1.2.2	Unprocessed cereals	5,0			
1.2.3	Products derived from unprocessed cereals and cereals intended for direct human consumption except products listed in 1.2.4, 1.2.12 and 1.2.13	3,0			Including processed cereal products Products derived from cereals relate to products derived solely (or exclusively) or almost solely (or exclusively) from cereals.

1.2.4	Wheat gluten not placed on the market for the final consumer	8,0	
1.2.5	Roasted coffee beans and ground roasted coffee except products listed in 1.2.6	5,0	
1.2.6	Soluble coffee (instant coffee)	10,0	
1.2.7	Spices		Including dried spices
1.2.7.1	Pepper (fruits of <i>Piper</i> spp, including white and black pepper), nutmeg ( <i>Myristica fragrans</i> ), ginger ( <i>Zingiber officinale</i> ) and turmeric ( <i>Curcuma longa</i> )	15,0	
1.2.7.2	Capsicum (dried fruits of <i>Capsicum</i> spp. whole or ground, including chillies, chilli powder, cayenne and paprika)	20	
1.2.7.3	Mixtures of spices containing at least one of the abovementioned spices	15,0	
1.2.8	Liquorice ( <i>Glycyrrhiza glabra</i> , <i>Glycyrrhiza inflata</i> and other species)		
1.2.8.1	Liquorice root, ingredient for herbal infusion	20	
1.2.8.2	Liquorice extract, for use in food in particular beverages and confectionary	80	The maximum level applies to the pure and undiluted extract, obtained whereby 1 kg of extract is obtained from 3 to 4 kg liquorice root.



1.2.9	Wine and fruit wine <sup>(5)</sup>	2,0	<p>Including semi-sparkling and sparkling wines, excluding liqueur wine and wine with an alcoholic strength of not less than 15% vol</p> <p>The maximum level applies to products produced from the 2005 harvest onwards.</p>
1.2.10	Aromatised wine, aromatised wine-based drinks and aromatised wine-product cocktails <sup>(6)</sup>	2,0	<p>The maximum level applies to products produced from the 2005 harvest onwards.</p> <p>The maximum level applicable to these beverages is function of the proportion of wine and/or grape must present in the finished product.</p>
1.2.11	Grape juice, grape juice from concentrate, concentrated grape juice, grape nectar, grape must and concentrated grape must, intended for direct human consumption <sup>(7)</sup>	2,0	<p>For concentrated grape juice or concentrated grape must, the maximum level applies to juice or must as reconstituted.</p> <p>The maximum level applies to products produced from the 2005 harvest onwards</p>
1.2.12	Processed cereal-based food for infants and young children and baby food <sup>(4)</sup>	0,50	<p>The maximum level applies to the dry matter of the product as placed on the market.</p> <p>The dry matter is determined in accordance with Regulation (EC) No 401/2006.</p>

1.2.13	Food for special medical purposes intended for infants and young children <sup>(4)</sup>	0,50	The maximum level refers in the case of milk, milk products and similar products to the products ready to use (placed on the market as such or reconstituted as instructed by the manufacturer) and in the case of products other than milk, milk products and similar products to the dry matter. The dry matter is determined in accordance with Regulation (EC) No 401/2006.
<b>1.3</b>	<b>Patulin</b>	<b>Maximum levels (µg/kg)</b>	<b>Remarks</b>
1.3.1	Fruit juices, fruit juices from concentrate, concentrated fruit juices and fruit nectars <sup>(8)</sup>	50	For concentrated fruit juice, the maximum level applies to juice as reconstituted.
1.3.2	Spirit drinks, cider and other fermented drinks derived from apples or containing apple juice <sup>(8)</sup>	50	
1.3.3	Solid apple products intended for direct consumption except products listed in 1.3.4 and 1.3.5	25	Including apple compote and apple puree
1.3.4	Apple juice and solid apple products for infants and young children <sup>(4)</sup> and labelled and placed on the market as such	10,0	Including apple compote and apple puree The maximum level applies to the products ready to use (placed on the market as such or after reconstitution as instructed by the manufacturer).
1.3.5	Baby food <sup>(4)</sup>	10,0	The maximum level applies to the products ready to use (placed on the market as such or after reconstitution as instructed by the manufacturer).
<b>1.4</b>	<b>Deoxynivalenol</b>	<b>Maximum levels (µg/kg)</b>	<b>Remarks</b>

1.4.1	Unprocessed cereals except products listed in 1.4.2 and 1.4.3	1 250	Except rice and unprocessed maize intended to be processed by wet milling The maximum level applies to unprocessed cereals placed on the market for first-stage processing.
1.4.2	Unprocessed durum wheat and oats	1 750	The maximum level applies to unprocessed cereals placed on the market for first-stage processing.
1.4.3	Unprocessed maize	1 750	Except unprocessed maize for which it is evident e.g. through labelling, destination, that it is intended for use in a wet milling process only (starch production) The maximum level applies to unprocessed cereals placed on the market for first-stage processing.
1.4.4	Cereals intended for direct human consumption, cereal flour, semolina, bran and germ as final product placed on the market for direct human consumption except products listed in 1.4.7 and 1.4.8	750	Except rice and rice products
1.4.5	Pasta	750	Pasta means pasta (dry) with a water content of approximately 12 %.
1.4.6	Bread, pastries, biscuits, cereal snacks and breakfast cereals	500	Except rice products Including small bakery wares
1.4.7	Milling products of maize		

1.4.7.1	Maize flour not intended for direct human consumption	1 250	The percentage, measured by weight, passing through a woven metal wire cloth sieve with the aperture of 500 µm is not less than 90%.
1.4.7.2	Other milling products of maize not intended for direct human consumption	750	The percentage, measured by weight, passing through a woven metal wire cloth sieve with the aperture of 500 µm is less than 90%.
1.4.8	Processed cereal-based food for infants and young children and baby food <sup>(4)</sup>	200	Except rice products The maximum level applies to the dry matter of the product as placed on the market. The dry matter is determined in accordance with Regulation (EC) No 401/2006.
<b>1.5</b>	<b>Zearalenone</b>	<b>Maximum levels (µg/kg)</b>	<b>Remarks</b>
1.5.1	Unprocessed cereals except products listed in 1.5.2	100	Except rice and unprocessed maize intended to be processed by wet milling The maximum level applies to unprocessed cereals placed on the market for first-stage processing.
1.5.2	Unprocessed maize	350	Except unprocessed maize for which it is evident e.g. through labelling, destination, that it is intended for use in a wet milling process only (starch production) The maximum level applies to unprocessed cereals placed on the market for first-stage processing.

1.5.3	Cereals intended for direct human consumption, cereal flour, semolina, bran and germ as final product placed on the market for direct human consumption except products listed in 1.5.4, 1.5.6, 1.5.7 and 1.5.9	75	Except rice and rice products
1.5.4	Maize intended for direct human consumption	100	
1.5.5	Bread, pastries, biscuits, cereal snacks and breakfast cereals except products listed in 1.5.6	50	Except rice products Includes small bakery wares
1.5.6	Maize-based snacks and maize-based breakfast cereals	100	
1.5.7	Milling products of maize		
1.5.7.1	Maize flour not intended for direct human consumption	300	The percentage, measured by weight, passing through a woven metal wire cloth sieve with the aperture of 500 µm is not less than 90%.
1.5.7.2	Other milling products of maize not intended for direct human consumption	200	The percentage, measured by weight, passing through a woven metal wire cloth sieve with the aperture of 500 µm is less than 90%.
1.5.8	Refined maize oil	400	
1.5.9	Processed cereal-based food for infants and young children and baby food <sup>(4)</sup>	20	Except rice products  The maximum level applies to the dry matter of the product as placed on the market. The dry matter is determined in accordance with Regulation (EC) No 401/2006.

1.6	Fumonisin	Maximum levels (µg/kg)	Remarks
		<b>Sum of B<sub>1</sub> and B<sub>2</sub></b>	Lower bound concentrations are calculated on the assumption that all the values below the limit of quantification are zero.
1.6.1	Unprocessed maize	4 000	Except unprocessed maize for which it is evident e.g. through labelling, destination, that it is intended for use in a wet milling process only (starch production).  The maximum level applies to unprocessed cereals placed on the market for first-stage processing.
1.6.2	Maize intended for direct human consumption, maize-based food for direct human consumption except products listed in 1.6.3 and 1.6.5	1 000	
1.6.3	Maize-based breakfast cereals and maize-based snacks	800	
1.6.4	Milling products of maize		
1.6.4.1	Maize flour not intended for direct human consumption	2 000	The percentage, measured by weight, passing through a woven metal wire cloth sieve with the aperture of 500 µm is not less than 90%.
1.6.4.2	Other milling products of maize not intended for direct human consumption	1 400	The percentage, measured by weight, passing through a woven metal wire cloth sieve with the aperture of 500 µm is less than 90%.

1.6.5	Processed maize-based food for infants and young children and baby food <sup>(4)</sup>	200	The maximum level applies to the dry matter of the product as placed on the market. The dry matter is determined in accordance with Regulation (EC) No 401/2006.
<b>1.7</b>	<b>Citrinin</b>	<b>Maximum levels (µg/kg)</b>	<b>Remarks</b>
1.7.1	Food supplements based on rice fermented with red yeast <i>Monascus purpureus</i>	100	
<b>1.8</b>	<b>Ergot sclerotia and ergot alkaloids</b>		
<b>1.8.1</b>	<b>Ergot sclerotia</b>	<b>Maximum levels (g/kg)</b>	<b>Remarks</b>
			<p>The maximum level applies to unprocessed cereals placed on the market before first-stage processing.</p> <p>The sampling shall be performed in accordance with point B of Annex I to Regulation (EC) No 401/2006. The analysis shall be performed by microscopic examination.</p>
1.8.1.1	Unprocessed cereals except products listed in 1.8.1.2	0,5 0,2 as from 1.1.2022	Except maize and rice
1.8.1.2	Unprocessed rye	0,5 0,2 as from 1.7.2024	

1.8.2	Ergot alkaloids	Maximum levels (µg/kg)	Remarks
		Lowerbound sum of ergocornine/ergocorninine ergocristine/ergocristinine; ergocryptine/ergocryptinine ( $\alpha$ - and $\beta$ -form); ergometrine/ergometrinine; ergosine/ergosinine; ergotamine/ergotaminine	In the lowerbound sum, the contribution of each non-quantified epimer is set at zero.
1.8.2.1	Milling products of barley, wheat, spelt and oats (with an ash content lower than 900mg/100g)	100 50 as from 1.7.2024	
1.8.2.2	Milling products of barley, wheat, spelt and oats (with an ash content equal or higher than 900mg/100g)  Barley, wheat, spelt and oats grains placed on the market for the final consumer	150	
1.8.2.3	Rye milling products  Rye placed on the market for the final consumer	500 250 as from 1.7.2024	
1.8.2.4	Wheat gluten	400	
1.8.2.5	Processed cereal-based food for infants and young children and baby food <sup>(4)</sup>	20	The maximum level refers to the product as placed on the market.



2	Plant toxins			
2.1	Erucic acid	Maximum levels (g/kg)		Remarks
				The maximum level applies to the level of erucic acid, calculated on the total level of fatty acids in the fat component (erucic acid bound in fat) in food.
2.1.1	Vegetable oils and fats placed on the market for the final consumer or for use as an ingredient in food except products listed in 2.1.2	20,0		
2.1.2	Camelina oil, mustard oil and borage oil	50,0		With acceptance from the competent authority, the maximum level does not apply to mustard oil locally produced and consumed.
2.1.3	Mustard (condiment)	35,0		
2.2	Tropane alkaloids	Maximum level (µg/kg)		Remarks
		Atropine	Scopolamine	The sampling for the control of compliance with the maximum level shall be performed in accordance with the provisions provided for in part J of Annex I to Regulation (EC) No 401/2006.
2.2.1	Processed cereal-based food for infants and young children and baby food <sup>(4)</sup> , containing millet, sorghum, buckwheat, maize or their derived products	1,0	1,0	The maximum level refers to the product as placed on the market.

		<b>Sum of atropine and scopolamine</b>	
2.2.2	Unprocessed millet and sorghum	5,0	As from 1.9. 2022 The maximum level applies to unprocessed cereals placed on the market for first-stage processing.
2.2.3	Unprocessed maize	15	Except unprocessed maize for which it is evident e.g. through labelling, destination, that it is intended for use in a wet milling process only (starch production) and for unprocessed maize for popping As from 1.9. 2022 The maximum level applies to unprocessed cereals placed on the market for first-stage processing.
2.2.4	Unprocessed buckwheat	10	As from 1.9. 2022 The maximum level applies to unprocessed cereals placed on the market for first-stage processing.
2.2.5	Maize for popping Millet, sorghum and maize placed on the market for the final consumer Milling products of millet, sorghum and maize	5,0	As from 1.9. 2022
2.2.6	Buckwheat placed on the market for the final consumer Milling products of buckwheat	10	As from 1.9. 2022

2.2.7	Herbal infusions (dried product) except products listed in 2.2.8	25	As from 1.9. 2022
2.2.8	Herbal infusions (dried product) of anise seeds	50	As from 1.9. 2022
2.2.9	Herbal infusions (liquid product)	0,20	As from 1.9. 2022
<b>2.3</b>	<b>Hydrocyanic acid, including hydrocyanic acid bound in cyanogenic glycosides</b>	<b>Maximum level (mg/kg)</b>	<b>Remarks</b>
2.3.1	Unprocessed whole, ground, milled, cracked, chopped apricot kernels placed on the market for the final consumer	20,0	The operator who places unprocessed whole, ground, milled, cracked, chopped apricot kernels on the market for the final consumer shall provide upon request from the competent authority evidence of compliance of the marketed product with the maximum level.
<b>2.4</b>	<b>Pyrrolizidine alkaloids</b>	<b>Maximum levels (µg/kg)</b>	<b>Remarks</b>
		The maximum level refers to the lowerbound sum of the following 21 pyrrolizidine alkaloids: - intermedine/lycopsamine, intermedine-N-oxide/lycopsamine-N-oxide, senecionine/senecivernine, senecionine-N-oxide/senecivernine-N-oxide, seneciphylline, seneciphylline-N-oxide, retrorsine, retrorsine-N-oxide, echimidine, echimidine-N-oxide, lasiocarpine, lasiocarpine-N-oxide, senkirkine, europine, europine-N-oxide, heliotrine and heliotrine-N-oxide	As from 1 July 2022

		<p>and the following additional 14 pyrrolizidine alkaloids known to co-elute with one or more of the above identified 21 pyrrolizidine alkaloids, making use of certain currently used analytical methods:</p> <p>- indicine, echinatine, rinderine (possible co-elution with lycopsamine/intermediate), indicine-N-oxide, echinatine-N-oxide, rinderine-N-oxide (possible co-elution with lycopsamine-N-oxide/intermediate-N-oxide), integerrimine (possible co-elution with senecivernine/senecionine), integerrimine-N-oxide (possible co-elution with senecivernine-N-oxide/senecionine-N-oxide), heliosupine (possible co-elution with echimidine), heliosupine-N-oxide (possible co-elution with echimidine-N-oxide), spartioidine (possible co-elution with seneciphylline), spartioidine-N-oxide (possible co-elution with seneciphylline-N-oxide), usaramine (possible co-elution with retrorsine), usaramine N-oxide (possible co-elution with retrorsine N-oxide)</p> <p>Pyrrolizidine alkaloids, which can be individually and separately identified with the used method of analysis, shall be quantified and included in the sum.</p>	
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2.4.1	Borage leaves (fresh, frozen) placed on the market for the final consumer	750	Without prejudice to more restrictive national rules in certain Member States on the placing of the market of pyrrolizidine alkaloid containing plants.
2.4.2	Dried herbs except products listed in 2.4.3	400	Without prejudice to more restrictive national rules in certain Member States on the placing of the market of pyrrolizidine alkaloid containing plants.
2.4.3	Borage, lovage, marjoram and oregano (dried product) and mixtures exclusively composed of these dried herbs	1000	Without prejudice to more restrictive national rules in certain Member States on the placing of the market of pyrrolizidine alkaloid containing plants.
2.4.4	Tea ( <i>Camellia sinensis</i> ) and flavoured tea ( <i>Camellia sinensis</i> ) (dried product) except tea and flavoured tea referred to in 2.4.5	150	<p>Flavoured tea is tea with flavourings and certain food ingredients with flavouring properties, as defined in Regulation (EC) No 1334/2008</p> <p>Tea (<i>Camellia sinensis</i>) (dried product) refers to instant herbal teas/teas. In the case of powdered tea extracts, a concentration factor of 4 has to be applied.</p>
2.4.5	Tea ( <i>Camellia sinensis</i> ), flavoured tea ( <i>Camellia sinensis</i> ) and herbal infusions for infants and young children (dried product)	75	Flavoured tea is tea with flavourings and certain food ingredients with flavouring properties, as defined in Regulation (EC) No 1334/2008.
2.4.6	Tea ( <i>Camellia sinensis</i> ), flavoured tea ( <i>Camellia sinensis</i> ) and herbal infusions for infants and young children (liquid product)	1,0	Flavoured tea is tea with flavourings and certain food ingredients with flavouring properties, as defined in Regulation (EC) No 1334/2008.
2.4.7	Herbal infusions (dried product) except products listed in 2.4.5 and 2.4.8	200	Herbal infusions (dried product) are herbal infusions (dried product) from flowers, leaves and herbs, roots, and any other parts of the plant (in sachets or in bulk)/tea ( <i>Camellia sinensis</i> ) (dried product) from dried leaves, stalks and

			<p>flowers (in sachets or in bulk) used for the preparation of herbal infusion (liquid product)/tea (liquid product).</p> <p>Tea (<i>Camellia sinensis</i>) (dried product) refers to instant herbal teas/teas. In the case of powdered tea extracts, a concentration factor of 4 has to be applied.</p> <p>Without prejudice to more restrictive national rules in certain Member States on the placing of the market of pyrrolizidine alkaloid containing plants.</p>
2.4.8	Herbal infusions of rooibos, anise ( <i>Pimpinella anisum</i> ), lemon balm, chamomile, thyme, peppermint, lemon verbena (dried product) and mixtures exclusively composed of these dried herbs except herbal infusions referred to in 2.4.5	400	<p>Herbal infusions (dried product) are herbal infusions (dried product) from flowers, leaves and herbs, roots, and any other parts of the plant (in sachets or in bulk)/tea (<i>Camellia sinensis</i>) (dried product) from dried leaves, stalks and flowers (in sachets or in bulk) used for the preparation of herbal infusion (liquid product)/tea (liquid product).</p> <p>Tea (<i>Camellia sinensis</i>) (dried product)" refers to instant herbal teas/teas. In the case of powdered tea extracts, a concentration factor of 4 has to be applied.</p> <p>Without prejudice to more restrictive national rules in certain Member States on the placing of the market of pyrrolizidine alkaloid containing plants.</p>
2.4.9	Cumin seeds (seed spice)	400	
2.4.10	Food supplements containing herbal ingredients including extracts except products listed in 2.4.11	400	<p>The maximum level applies to the food supplements as placed on the market.</p> <p>Without prejudice to more restrictive national rules in certain Member States on the placing of the market of pyrrolizidine alkaloid containing plants.</p>

2.4.11	Pollen based food supplements Pollen and pollen products	500	The maximum level applies to the food supplements as placed on the market.
<b>2.5</b>	<b>Opium alkaloids</b>	<b>Maximum level (mg/kg)</b>	<b>Remarks</b>
			The maximum level refers to the sum of morphine and codeine, for which a factor of 0,2 is applied to the level of codeine. Therefore, the maximum level refers to the sum of morphine + 0,2 codeine.  As from 1 July 2022
2.5.1	Whole, ground or milled poppy seeds placed on the market for the final consumer	20	
2.5.2	Bakery products containing poppy seeds and/or derived products thereof	1,50	Bakery products include also flour-based ready-to-eat savouries and snacks  The food business operator supplying the poppy seeds to the food business operator manufacturing the bakery products shall provide the necessary information to enable the manufacturer of the bakery products to place products on the market that comply with the maximum level. This information shall include analytical data, where appropriate.

<b>3</b>	<b>Metals and other elements</b>		
3.1	<b>Lead</b>	<b>Maximum levels (mg/kg wet weight)</b>	<b>Remarks</b>
3.1.1	Fruit		The maximum level applies after washing and separating the edible part.
3.1.1.1	Cranberries, currants, elderberries and strawberry tree fruit	0,20	
3.1.1.2	Fruits other than cranberries, currants, elderberries and strawberry tree fruit	0,10	
3.1.2	Root and tuber vegetables		The maximum level applies after washing and separating the edible part.
3.1.2.1	Root and tuber vegetables except products listed in 3.1.2.2 and 3.1.2.3	0,10	For potatoes the maximum level applies to peeled potatoes.
3.1.2.2	Fresh ginger, fresh turmeric	0,80	
3.1.2.3	Salsify	0,30	
3.1.3	Bulb vegetables	0,10	The maximum level applies after washing and separating the edible part.
3.1.4	Fruiting vegetables		The maximum level applies after washing and separating the edible part.
3.1.4.1	Fruiting vegetables except products listed in 3.1.4.2	0,050	



3.1.4.2	Sweetcorn	0,10	
3.1.5	Brassica vegetables (excluding brassica roots and brassica baby leaf crops)		The maximum level applies after washing and separating the edible part.
3.1.5.1	Brassica vegetables other than those listed in 3.1.5.2	0,10	
3.1.5.2	Leafy brassica	0,30	
3.1.6	Leaf vegetables excluding fresh herbs and edible flowers	0,30	The maximum level applies after washing and separating the edible part.
3.1.7	Legume vegetables	0,10	The maximum level applies after washing and separating the edible part.
3.1.8	Stem vegetables	0,10	The maximum level applies after washing and separating the edible part.
3.1.9	Fungi		The maximum level applies after washing and separating the edible part.
3.1.9.1	The following cultivated fungi: common mushroom ( <i>Agaricus bisporus</i> ), oyster mushroom ( <i>Pleurotus ostreatus</i> ) and shiitake mushroom ( <i>Lentinula edodes</i> )	0,30	
3.1.9.2	Wild fungi	0,80	
3.1.10	Pulses	0,20	
3.1.11	Cereals	0,20	

3.1.12	Dried spices		The maximum level refers to the product as placed on the market.
3.1.12.1	Seed spices	0,90	
3.1.12.2	Fruit spices	0,60	
3.1.12.3	Bark spices	2,0	
3.1.12.4	Root and rhizome spices	1,50	
3.1.12.5	Bud spices	1,0	
3.1.12.6	Flower pistil spices	1,0	
3.1.13	Meat of bovine animals, sheep, pig and poultry <sup>3</sup> except products listed in 3.1.14	0,10	
3.1.14	Offal <sup>3</sup>		
3.1.14.1	of bovine animals and sheep	0,20	
3.1.14.2	of pig	0,15	
3.1.14.3	of poultry	0,10	
3.1.15	Muscle meat of fish	0,30	Where fish are intended to be eaten whole, the maximum level shall apply to the whole fish.  In case of dried, diluted, processed and/or compound foodstuffs Article 2(1) and 2(2) apply.

3.1.16	Cephalopods	0,30	The maximum level applies to the animal as placed on the market without viscera.
3.1.17	Crustaceans	0,50	The maximum level shall apply to muscle meat from appendages and abdomen. This definition excludes the cephalothorax of crustaceans. In case of crabs and crab-like crustaceans ( <i>Brachyura</i> and <i>Anomura</i> ) the maximum level applies to the muscle meat from appendages.
3.1.18	Bivalve molluscs	1,50	In case of <i>Pecten maximus</i> , the maximum level applies to the adductor muscle and gonad only.
3.1.19	Raw milk <sup>(3)</sup> , heat-treated milk and milk for the manufacture of milk-based products	0,020	
3.1.20	Honey	0,10	
3.1.21	Fats and oils	0,10	Including milk fat
3.1.22	Caseins and caseinates	0,75	
3.1.23	Gelatine and collagen	5,0	
3.1.24	Fruit juices, fruit juices from concentrate, concentrated fruit juices and fruit nectars <sup>(8)</sup>		For concentrated fruit juice the maximum level applies to juice reconstituted.
3.1.24.1	exclusively from berries and other small fruits	0,050	
3.1.24.2	other than exclusively from berries and other small fruits, including mixtures	0,030	

3.1.25	Wine <sup>6</sup> , cider, perry and fruit wine		Including semi-sparkling and sparkling wines, excluding liqueur wine and wine with an alcoholic strength of not less than 15% vol.
3.1.25.1	products produced from the 2001 fruit harvest to the 2015 fruit harvest	0,20	
3.1.25.2	products produced from the 2016 fruit harvest to the 2021 fruit harvest	0,15	
3.1.25.3	products produced from the 2022 fruit harvest onwards	0,10	
3.1.26	Aromatised wine, aromatised wine-based drinks and aromatised wine-product cocktails <sup>(7)</sup>		
3.1.26.1	products produced from the 2001 fruit harvest to the 2015 fruit harvest	0,20	
3.1.26.2	products produced from the 2016 fruit harvest to the 2021 fruit harvest	0,15	
3.1.26.3	products produced from the 2022 fruit harvest onwards	0,10	
3.1.27	Liqueur wine made from grapes <sup>(6)</sup>		
3.1.27.1	products produced from the 2022 fruit harvest onwards	0,15	
3.1.28	Salts		

3.1.28.1	Salts except products listed in 3.1.28.2	1,0	
3.1.28.2	The following unrefined salts: ‘fleur de sel’ and ‘grey salt’ which are manually harvested from salt marshes with a clay bottom	2,0	
3.1.29	Infant formulae, follow-on formulae <sup>(4)</sup> and young-child formulae <sup>(5)</sup>		The maximum level refers to the product as placed on the market.
3.1.29.1	placed on the market as powder	0,020	
3.1.29.2	placed on the market as liquid	0,010	
3.1.30	Drinks for infants and young children <sup>(4)</sup> placed on the market and labelled as such except products listed in 3.1.29 and 3.1.32		
3.1.30.1	placed on the market as liquid or to be reconstituted following instructions of the manufacturer	0,020	Including fruit juices The maximum level refers to the products ready to use (placed on the market as such or after reconstitution as instructed by the manufacturer).
3.1.30.2	to be prepared by infusion or decoction	0,50	The maximum level refers to the product as placed on the market.
3.1.31	Processed cereal-based food for infants and young children and baby food <sup>(4)</sup> except products listed in 3.1.30	0,020	The maximum level refers to the product as placed on the market.

3.1.32	Food for special medical purposes intended for infants and young children <sup>(4)</sup>		The maximum level refers to the product as placed on the market.
3.1.32.1	placed on the market as powder	0,020	
3.1.32.2	placed on the market as liquid	0,010	
3.1.33	Food supplements	3,0	The maximum level applies to the food supplements as placed on the market.
<b>3.2</b>	<b>Cadmium</b>	<b>Maximum levels (mg/kg wet weight)</b>	<b>Remarks</b>
3.2.1	Fruits and tree nuts		The maximum level applies after washing and separating the edible part.  The maximum levels do not apply to tree nuts for crushing and oil refining, provided that the remaining pressed tree nuts are not placed on the market as food. In case the remaining pressed tree nuts are placed on the market as food, the maximum levels apply, taking into account Articles 2(1) and 2(2) of this Regulation.
3.2.1.1	Fruits except products listed in 3.2.1.2, 3.2.1.3 and 3.2.1.4	0,050	
3.2.1.2	Citrus fruits, pome fruits, stone fruits, table olives, kiwi fruits, bananas, mangoes, papayas and pineapples	0,020	
3.2.1.3	Berries and small fruits, except products listed in 3.2.1.4	0,030	

3.2.1.4	Raspberries	0,040	
3.2.1.5	Tree nuts		
3.2.1.5.1	Tree nuts except products listed in 3.2.1.5.2	0,20	
3.2.1.5.2	Pine nuts	0,30	
3.2.2	Root and tuber vegetables		The maximum level applies after washing and separating the edible part.
3.2.2.1	Root and tuber vegetables except products listed in 3.2.2.2, 3.2.2.3, 3.2.2.4, 3.2.2.5 and 3.2.2.6	0,10	For potatoes the maximum level applies to peeled potatoes.
3.2.2.2	Beetroots	0,060	
3.2.2.3	Celeriac	0,15	
3.2.2.4	Horseradish, parsnips, salsify	0,20	
3.2.2.5	Radishes	0,020	
3.2.2.6	Tropical roots and tubers, parsley roots, turnips	0,050	
3.2.3	Bulb vegetables		The maximum level applies after washing and separating the edible part.
3.2.3.1	Bulb vegetables except products listed in 3.2.3.2	0,030	

3.2.3.2	Garlic	0,050	
4.2.4	Fruiting vegetables		The maximum level applies after washing and separating the edible part.
3.2.4.1	Fruiting vegetables except products listed in 3.2.4.2	0,020	
3.2.4.2	Aubergines	0,030	
3.2.5	Brassica vegetables		The maximum level applies after washing and separating the edible part.
3.2.5.1	Brassica except products listed in 3.2.5.2	0,040	
3.2.5.2	Leafy brassica	0,10	
3.2.6	Leaf vegetables, herbs and edible flowers		The maximum level applies after washing and separating the edible part.
3.2.6.1	Leaf vegetables except products listed in 3.2.6.2	0,10	
3.2.6.2	Spinaches and similar leaves, mustard seedlings and fresh herbs	0,20	
3.2.7	Legume vegetables	0,020	The maximum level applies after washing and separating the edible part.
3.2.8	Stem vegetables		The maximum level applies after washing and separating the edible part.



3.2.8.1	Stem vegetables except products listed in 3.2.8.2 and 3.2.8.3	0,030	
3.2.8.2	Celeries	0,10	
3.2.8.3	Leeks	0,040	
3.2.9	Fungi		The maximum level applies after washing and separating the edible part.
3.2.9.1	Cultivated fungi except products listed in 3.2.9.2	0,050	
3.2.9.2	Oyster mushroom ( <i>Pleurotus ostreatus</i> ) and shiitake mushroom ( <i>Lentinula edodes</i> )	0,15	
3.2.9.3	Wild fungi	0,50	
3.2.10	Pulses and proteins from pulses		
3.2.10.1	Pulses except products listed in 3.2.10.2	0,040	
3.2.10.2	Proteins from pulses	0,10	
3.2.11	Oilseeds		The maximum levels do not apply to oilseeds for crushing and oil refining, provided that the remaining pressed oilseeds are not placed on the market as food. In case the remaining pressed oilseeds are placed on the market as food, the maximum levels apply, taking into account Articles 2(1) and 2(2) of this Regulation.

3.2.11.1	Oilseeds except products listed in 3.2.11.2, 3.2.11.3, 3.2.11.4, 3.2.11.5 and 3.2.11.6.	0,10	
3.2.11.2	Rape seeds	0,15	
3.2.11.3	Peanuts and soy beans	0,20	
3.2.11.4	Mustard seeds	0,30	
3.2.11.5	Linseeds and sunflower seeds	0,50	
3.2.11.6	Poppy seeds	1,20	
3.2.12	Cereals		The maximum levels do not apply to cereals used for malt for beer or distillates production, provided that the remaining malt is not placed on the market as food. In case the remaining malt is placed on the market as food, the maximum levels apply, taking into account Articles 2(1) and 2(2) of this Regulation.
3.2.12.1	Cereals except products listed in 3.2.12.2, 3.2.12.3, 3.2.12.4 and 3.2.12.5.	0,10	
3.2.12.2	Barley and rye	0,050	
3.2.12.3	Rice, quinoa, wheat bran and wheat gluten	0,15	
3.2.12.4	Durum wheat ( <i>Triticum durum</i> )	0,18	
3.2.12.5	Wheat germ	0,20	
3.2.13	Products of animal origin <sup>(3)</sup>		

3.2.13.1	Meat of bovine animals, sheep, pig and poultry	0,050	Except offal
3.2.13.2	Horsemeat	0,20	Except offal
3.2.13.3	Liver of bovine animals, sheep, pig, poultry and horse	0,50	
3.2.13.4	Kidney of bovine animals, sheep, pig, poultry and horse	1,0	
3.2.14	Fishery products <sup>(3)</sup> and bivalve molluscs		
3.2.14.1	Muscle meat of fish except species listed in 3.2.14.2, 3.2.14.3 and 3.2.14.4	0,050	Where fish are intended to be eaten whole, the maximum level shall apply to the whole fish.  In case of dried, diluted, processed and/or compound foodstuffs Article 2(1) and 2(2) apply.
3.2.14.2	Muscle meat of mackerel ( <i>Scomber</i> species), tuna ( <i>Thunnus</i> species, <i>Katsuwonus pelamis</i> , <i>Euthynnus</i> species) and bichique ( <i>Sicyopterus lagocephalus</i> )	0,10	Where fish are intended to be eaten whole, the maximum level shall apply to the whole fish.  In case of dried, diluted, processed and/or compound foodstuffs Article 2(1) and 2(2) apply.
3.2.14.3	Muscle meat of bullet tuna ( <i>Auxis</i> species)	0,15	Where fish are intended to be eaten whole, the maximum level shall apply to the whole fish.  In case of dried, diluted, processed and/or compound foodstuffs Article 2(1) and 2(2) apply.

3.2.14.4	Muscle meat of anchovy ( <i>Engraulis</i> species), swordfish ( <i>Xiphias gladius</i> ) and sardine ( <i>Sardina pilchardus</i> )	0,25	Where fish are intended to be eaten whole, the maximum level shall apply to the whole fish.  In case of dried, diluted, processed and/or compound foodstuffs Article 2(1) and 2(2) apply.
3.2.14.5	Crustaceans	0,50	The maximum level shall apply to muscle meat from appendages and abdomen. This definition excludes the cephalothorax of crustaceans. In case of crabs and crab-like crustaceans ( <i>Brachyura</i> and <i>Anomura</i> ) the maximum level applies to the muscle meat from appendages.  In case of dried, diluted, processed and/or compound foodstuffs Article 2(1) and 2(2) apply.
3.2.14.6	Bivalve molluscs	1,0	In case of <i>Pecten maximus</i> , the maximum level applies to the adductor muscle and gonad only.  In case of dried, diluted, processed and/or compound foodstuffs Article 2(1) and 2(2) apply.
3.2.14.7	Cephalopods	1,0	The maximum level applies to the animal as placed on the market without viscera.  In case of dried, diluted, processed and/or compound foodstuffs Article 2(1) and 2(2) apply.
3.2.15	Gelatine and collagen	0,50	
3.2.16	Specific cocoa and chocolate products		
3.2.16.1	Milk chocolate with < 30 % total dry cocoa solids	0,10	

3.2.16.2	Chocolate with < 50 % total dry cocoa solids; milk chocolate with $\geq 30$ % total dry cocoa solids	0,30	
3.2.16.3	Chocolate with $\geq 50$ % total dry cocoa solids	0,80	
3.2.16.4	Cocoa powder placed on the market for the final consumer or as an ingredient in sweetened cocoa powder or powdered chocolate placed on the market for the final consumer (drinking chocolate)	0,60	
3.2.17	Salt	0,50	
3.2.18	Infant formulae, follow-on formulae, food for special medical purposes intended for infants and young children <sup>(4)</sup> and young-child formulae <sup>(5)</sup>		The maximum level refers to the product as placed on the market.
3.2.18.1	placed on the market as powder and manufactured from cows' milk proteins or cow's milk protein hydrolysates	0,010	
3.2.18.2	placed on the market as liquid and manufactured from cows' milk proteins or cow's milk protein hydrolysates	0,005	
3.2.18.3	placed on the market as powder and manufactured from soy protein isolates, alone or in a mixture with cows' milk proteins	0,020	

3.2.18.4	placed on the market as liquid and manufactured from soy protein isolates, alone or in a mixture with cows' milk proteins	0,010	
3.20.19	Young-child formulae <sup>(5)</sup>		The maximum level refers to the product as placed on the market.
3.2.19.1	placed on the market as powder and manufactured from plant protein isolates other than soy protein isolates, alone or in a mixture with cow's milk proteins	0,020	
3.2.19.2	placed on the market as liquid and manufactured from plant protein isolates other than soya protein isolates, alone or in a mixture with cow's milk proteins	0,010	
3.2.20	Drinks for infants and young children <sup>(4)</sup> labelled and placed on the market as such except products listed in 3.2.18 and 3.2.19		
3.2.20.1	placed on the market as liquid or to be reconstituted following instructions of the manufacturer	0,020	Including fruit juices The maximum level refers to the products ready to use and placed on the market as such.
3.2.21	Processed cereal-based food for infants and young children and baby food <sup>(4)</sup>	0,040	The maximum level refers to the product as placed on the market.
3.20.22	Food supplements		The maximum level applies to the food supplements as placed on the market.

3.2.22.1	Food supplements except products listed in 3.2.22.2	1,0	
3.2.22.2	Food supplements consisting exclusively or mainly of dried seaweed, products derived from seaweed or of dried bivalve molluscs	3,0	

<b>3.3</b>	<b>Mercury</b>	<b>Maximum levels (mg/kg) wet weight</b>	<b>Remarks</b>
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3.3.1	Fishery products <sup>(3)</sup> and bivalve molluscs except species listed in 3.3.2	0,50	<p>Except fish liver</p> <p>In case of fish, ML shall be applied to muscle meat of fish.</p> <p>In case of dried, diluted, processed and/or compound foodstuffs Article 2(1) and 2(2) apply.</p> <p>Where fish are intended to be eaten whole, the maximum level shall apply to the whole fish.</p> <p>In case of <i>Pecten maximus</i>, the maximum level applies to the adductor muscle and gonad only.</p> <p>For crustaceans, the maximum level shall apply to muscle meat from appendages and abdomen. This definition excludes the cephalothorax of crustaceans. In case of crabs and crab-like crustaceans (<i>Brachyura</i> and <i>Anomura</i>) the maximum level applies to the muscle meat from appendages.</p> <p>For cephalopods, the maximum level applies to the animal without viscera.</p>
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3.3.2	Muscle meat of anglerfish ( <i>Lophius</i> species), Atlantic catfish ( <i>Anarhichas lupus</i> ), bonito ( <i>Sarda sarda</i> ), eel ( <i>Anguilla</i> species), emperor, orange roughy or rosy soldierfish ( <i>Hoplostethus</i> species), grenadier ( <i>Coryphaenoides rupestris</i> ), halibut ( <i>Hippoglossus hippoglossus</i> ), kingklip ( <i>Genypterus capensis</i> ), marlin ( <i>Makaira</i> species), megrim ( <i>Lepidorhombus</i> species), mullet ( <i>Mullus</i> species), pink cusk eel ( <i>Genypterus blacodes</i> ), pike ( <i>Esox lucius</i> ), plain bonito ( <i>Orcynopsis unicolor</i> ), poor cod ( <i>Tricopterus minutes</i> ), Portuguese dogfish ( <i>Centroscymnus coelolepis</i> ), rays ( <i>Raja</i> species), redfish ( <i>Sebastes marinus</i> , <i>S. mentella</i> , <i>S. viviparus</i> ), sail fish ( <i>Istiophorus platypterus</i> ), scabbard fish ( <i>Lepidopus caudatus</i> , <i>Aphanopus carbo</i> ), seabream or pandora ( <i>Pagellus</i> species), shark (all species), snake mackerel or butterfish ( <i>Lepidocybium flavobrunneum</i> , <i>Ruvettus pretiosus</i> , <i>Gempylus serpens</i> ), sturgeon ( <i>Acipenser</i> species), swordfish ( <i>Xiphias gladius</i> ), tuna ( <i>Thunnus</i> species, <i>Euthynnus</i> species, <i>Katsuwonus pelamis</i> )	1,0	In case of dried, diluted, processed and/or compound foodstuffs Article 2(1) and 2(2) apply.  Where fish are intended to be eaten whole, the maximum level shall apply to the whole fish.
3.3.3	Gelatine and collagen	0,15	
3.3.4	Food supplements	0,10	The maximum level applies to the food supplements as placed on the market.

<b>3.4</b>	<b>Arsenic (inorganic)</b>	<b>Maximum levels (mg/kg) wet weight</b>	<b>Remarks</b>
		Sum of As <sup>(III)</sup> and As <sup>(V)</sup>	
3.4.1	Non-parboiled milled rice (polished or white rice)	0,20	
3.4.2	Parboiled rice and husked rice	0,25	
3.4.3	Rice waffles, rice wafers, rice crackers and rice cakes	0,30	
3.4.4	Rice destined for the production of food intended for infants and young children <sup>(4)</sup>	0,10	
<b>3.5</b>	<b>Tin (inorganic)</b>	<b>Maximum levels (mg/kg) wet weight</b>	<b>Remarks</b>
3.5.1	Canned food except products listed in 3.5.2, 3.5.3, 3.5.4 and 3.5.5	200	
3.5.2	Canned beverages except products listed in 3.5.3, 3.5.4 and 3.5.5	100	Including fruit juices and vegetable juices
3.5.3	Canned infant formulae, canned follow-on formulae <sup>(4)</sup> and canned young-child formulae <sup>(5)</sup>	50	Except canned dried and canned powdered products The maximum level refers to the product as placed on the market.

3.5.4	Canned processed cereal-based food for infants and young children and canned baby food <sup>(4)</sup>	50	Except canned dried and canned powdered products The maximum level refers to the product as placed on the market.
3.5.5	Canned food for special medical purposes intended for infants and young children <sup>(4)</sup>	50	Except canned dried and canned powdered products The maximum level refers to the product as placed on the market.

<b>4</b>	<b>Persistent Organic Pollutants</b>				
<b>4.1</b>	<b>Dioxins and PCBs</b>	<b>Maximum levels</b>			<b>Remarks</b>
		<b>Sum of dioxins (pg WHO-PCDD/F-TEQ/g)</b>	<b>Sum of dioxins and dioxin-like PCBs (pg WHO-PCDD/F-PCB-TEQ/g)</b>	<b>Sum of non dioxin-like PCBs (ng/g)</b>	<p>See definition of WHO-TEQ.</p> <p>Sum of non dioxin-like PCBs is of PCB28, PCB52, PCB101, PCB138, PCB153 and PCB180 (ICES - 6).</p> <p>Upperbound concentrations are calculated on the assumption that all the values of the different congeners below the limit of quantification are equal to the limit of quantification.</p> <p>Maximum levels expressed on fat are not applicable for food containing &lt; 2 % fat. For food containing less than 2 % fat, the maximum level applicable is the level on product basis corresponding to the level on product basis for the food containing 2 % fat, calculated from the maximum level established on fat basis, making use of following formula: Maximum level expressed on product basis for food containing less than 2 % fat = maximum level expressed on fat for that food x 0,02.</p>
4.1.1	Meat and meat products except products listed in 4.1.2, 4.1.3 and 4.1.4				
4.1.1.1	of bovine animals and sheep	2,5 pg/g fat	4,0 pg/g fat	40 ng/g fat	
4.1.1.2	of pigs	1,0 pg/g fat	1,2 pg/g fat	40 ng/g fat	
4.1.1.3	of poultry	1,7 pg/g fat	3,0 pg/g fat	40 ng/g fat	

4.1.2	Liver and derived products thereof				
4.1.2.1	of bovine animals, pigs and poultry	0,30 pg/g wet weight	0,50 pg/g wet weight	3,0 ng/g wet weight	
4.1.2.2	of sheep	1,2 pg/g wet weight	2,0 pg/g wet weight	3,0 ng/g wet weight	
4.1.3	Fat				
4.1.3.1	of bovine animals and sheep	2,5 pg/g fat	4,0 pg/g fat	40 ng/g fat	
4.1.3.2	of pigs	1,0 pg/g fat	1,2 pg/g fat	40 ng/g fat	
4.1.3.3	of poultry	1,7 pg/g fat	3,0 pg/g fat	40 ng/g fat	
4.1.4	Mixed animal fats	1,5 pg/g fat	2,5 pg/g fat	40 ng/g fat	
4.1.5	Fishery products <sup>(3)</sup> and bivalve molluscs except products listed in 4.1.6, 4.1.7, 4.1.8, 4.1.9 and 4.1.10	3,5 pg/g wet weight	6,5 pg/g wet weight	75 ng/g wet weight	In case of fish, ML shall be applied to muscle meat of fish.
4.1.6	Muscle meat of wild caught fresh water fish and products thereof	3,5 pg/g wet weight	6,5 pg/g wet weight	125 ng/g wet weight	Except diadromous fish species caught in fresh water and products thereof
4.1.7	Muscle meat of wild caught spiny dogfish ( <i>Squalus acanthias</i> ) and products thereof	3,5 pg/g wet weight	6,5 pg/g wet weight	200 ng/g wet weight	
4.1.8	Muscle meat of wild caught eel ( <i>Anguilla anguilla</i> ) and products thereof	3,5 pg/g wet weight	10,0 pg/g wet weight	300 ng/g wet weight	

4.1.9	Fish liver and derived products thereof except products listed in 4.1.10	-	20,0 pg/g wet weight	200 ng/g wet weight	In the case of canned fish liver, the maximum level applies to the whole edible content of the can.
4.1.10	Marine oils (fish body oil, fish liver oil and oils of other marine organisms intended for human consumption)	1,7 pg/g fat	6,0 pg/g fat	200 ng/g fat	
4.1.11	Raw milk and dairy products	2,5 pg/g fat	5,5 pg/g fat	40 ng/g fat	Including butter fat
4.1.12	Hen eggs and egg products	2,5 pg/g fat	5,0 pg/g fat	40 ng/g fat	
4.1.13	Vegetable oils and fats	0,75 pg/g fat	1,2 pg/g fat	40 ng/g fat	
4.1.14	Food intended for infants and young children <sup>(4)</sup>	0,10 pg/g wet weight	0,20 pg/g wet weight	1,0 ng/g wet weight	The maximum level applies to the products ready to use (placed on the market as such or after reconstitution as instructed by the manufacturer).

<b>5</b>	<b>Processing contaminants</b>			
<b>5.1</b>	<b>Polycyclic aromatic hydrocarbons</b>	<b>Maximum levels (µg/kg)</b>		<b>Remarks</b>
		<b>Benzo(a) pyrene</b>	<b>Sum of PAHs: benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and chrysene</b>	For the sum of PAHs, lower bound concentrations are calculated on the assumption that all the values of the four substances below the limit of quantification are zero.
5.1.1	Banana chips	2,0	20,0	
5.1.2	Powders of food of plant origin for the preparation of beverages except products listed in 5.1.4 and 5.1.5	10,0	50,0	The preparation of beverages refers to the use of powders that are finely ground and are to be stirred into drinks.
5.1.3	Dried herbs	10,0	50,0	
5.1.4	Cocoa beans and derived products except products listed in point 5.1.5	5,0 µg/kg fat	30,0 µg/kg fat	Including cocoa butter
5.1.5	Cocoa fibre and products derived from cocoa fibre intended for use as an ingredient in food	3,0	15,0	Cocoa fibre is a specific cocoa product produced from the shell of the cocoa bean and contains higher levels of PAHs than the cocoa products produced from the cocoa nibs. The cocoa fibre and derived products are intermediate products in the production chain and are used as an ingredient in the preparation of low calorie, high fibre food.
5.1.6	Smoked meat and smoked meat products	2,0	12,0	

5.1.7	Smoked fishery products <sup>(3)</sup> except products listed in 5.1.8	2,0	12,0	<p>In case of fish, ML shall be applied to muscle meat of fish. Where fish are intended to be eaten whole, the maximum level shall apply to the whole fish.</p> <p>The maximum level for smoked crustaceans applies to muscle meat from appendages and abdomen. This definition excludes the cephalothorax of crustaceans.</p> <p>In case of smoked crabs and crab-like crustaceans (<i>Brachyura</i> and <i>Anomura</i>) it applies to muscle meat from appendages.</p>
5.1.8	Smoked sprats and canned smoked sprats ( <i>Sprattus sprattus</i> ); Smoked Baltic herring $\leq 14$ cm length and canned smoked Baltic herring $\leq 14$ cm length ( <i>Clupea harengus membras</i> ); Katsuobushi (dried bonito, <i>Katsuwonus pelamis</i> ); bivalve molluscs (fresh, chilled or frozen); heat treated meat and heat treated meat products placed on the market for the final consumer	5,0	30,0	<p>Where fish are intended to be eaten whole, the maximum level shall apply to the whole fish.</p> <p>Meat and meat products that have undergone a heat treatment potentially resulting in formation of PAH, i.e. only grilling and barbecuing.</p> <p>For the canned product the analysis shall be carried out on the whole content of the can. As regards the maximum level for the whole composite product Art. 2(1)(c) and 2(2) shall apply.</p>
5.1.9	Smoked bivalve molluscs	6,0	35,0	
5.1.10	Dried spices	10,0	50,0	Except cardamom and smoked <i>Capsicum</i> spp.
5.1.11	Oils and fats intended for direct human consumption or use as an ingredient in food	2,0	10,0	Except cocoa butter and coconut oil
5.1.12	Coconut oil intended for direct human consumption or use as an ingredient in food	2,0	20,0	



5.1.13	Infant formulae, follow-on formulae <sup>4</sup> and young-child formulae <sup>5</sup> )	1,0	1,0	The maximum level refers to the products ready to use (placed on the market as such or after reconstitution as instructed by the manufacturer).
5.1.14	Processed cereal-based food for infants and young children and baby food <sup>(4)</sup> )	1,0	1,0	The maximum level refers to the product as placed on the market.
5.1.15	Food for special medical purposes intended for infants and young children <sup>(4)</sup> )	1,0	1,0	The maximum level refers to the products ready to use (placed on the market as such or after reconstitution as instructed by the manufacturer).  The maximum level refers to the product as placed on the market.
5.1.16	Food supplements containing botanicals and their preparations  Food supplements containing propolis, royal jelly, spirulina or their preparations.	10,0	50,0	The maximum level applies to the food supplements as placed on the market.  The maximum level does not apply to food supplements containing vegetable oils. Vegetable oils used as an ingredient in food supplements should comply with the maximum level established in point 5.1.11.
<b>5.2</b>	<b>3-monochloropropane-1,2-diol (3-MCPD)</b>	<b>Maximum levels (µg/kg)</b>		<b>Remarks</b>
5.2.1	Hydrolysed vegetable protein	20		The maximum level is given for the liquid product containing 40 % dry matter, corresponding to a maximum level of 50 µg/kg in the dry matter. The level needs to be adjusted proportionally according to the dry matter content of the products.

5.2.2	Soy sauce	20	The maximum level is given for the liquid product containing 40 % dry matter, corresponding to a maximum level of 50 µg/kg in the dry matter. The level needs to be adjusted proportionally according to the dry matter content of the products.
<b>5.3</b>	<b>Sum of 3-monochloropropanediol (3-MCPD) and 3-MCPD fatty acid esters, expressed as 3-MCPD</b>	<b>Maximum levels (µg/kg)</b>	<b>Remarks</b>
5.3.1	Vegetable oils and fats, fish oils and oils from other marine organisms except products listed in 5.3.2 placed on the market for the final consumer or for use as an ingredient in food falling within the following categories:		Except virgin olive oils <sup>6</sup>
5.3.1.1	oils and fats from coconut, maize, rapeseed, sunflower, soybean, palm kernel and olive oils (composed of refined olive oil and virgin olive oil) and mixtures of oils and fats with oils and fats only from this category	1250	Except virgin olive oils <sup>6</sup>
5.3.1.2	other vegetable oils, fish oils and oils from other marine organisms and mixtures of oils and fats with oils and fats only from this category	2500	Including pomace olive oils
5.3.1.3	mixtures of oils and fats from products listed in 5.3.1.1 and 5.3.1.2	-	The oils and fats used as ingredient for the mixture shall comply with the maximum level established for the oil and fat. Therefore, the level of the sum of 3-MCPD and 3-MCPD fatty acid esters, expressed as 3-MCPD in the

			<p>mixture, shall not exceed the level calculated in accordance with Article 3(1)(c) of this Regulation.</p> <p>In case the quantitative composition is not known for the competent authority and the food business operator, not producing the mixture, the level of the sum of 3-MCPD and 3-MCPD fatty acid esters, expressed as 3-MCPD in the mixture shall in any case not exceed 2 500 µg/kg.</p>
5.3.2	Vegetable oils and fats, fish oils and oils from other marine organisms destined for the production of baby food and processed cereal-based food for infants and young children <sup>(4)</sup>	750	When the product is a mixture of different oils or fats of the same or of different botanical origins, the maximum level applies for the mixture. The oils and fats used as ingredient for the mixture shall comply with the maximum level established for the oil and fat in point 5.3.1.
5.3.2	Infant formulae, follow-on formulae and food for special medical purposes intended for infants and young children <sup>(4)</sup> and young-child formulae <sup>(5)</sup>		The maximum level refers to the product as placed on the market.
5.3.2.1	placed on the market as powder	125	Maximum level to be reviewed in view of lowering before 1 January 2023
5.3.2.2	placed on the market as liquid	15	Maximum level to be reviewed in view of lowering before 1 January 2023
<b>5.4</b>	<b>Glycidyl fatty acid esters, expressed as glycidol</b>	<b>Maximum levels (µg/kg)</b>	<b>Remarks</b>

5.4.1	Vegetable oils and fats, fish oils and oils from other marine organisms placed on the market for the final consumer or for use as an ingredient in food except products listed in 5.4.2	1000	Except virgin olive oils <sup>6</sup>
5.4.2	Vegetable oils and fats, fish oils and oils from other marine organisms destined for the production of baby food and processed cereal-based food for infants and young children <sup>(4)</sup>	500	When the product is a mixture of different oils or fats of the same or of different botanical origins, the maximum level applies for the mixture.  The oils and fats used as ingredient for the mixture shall comply with the maximum level established for the oil and fat in point 5.4.1.
5.4.3	Infant formulae, follow-on formulae and food for special medical purposes intended for infants and young children <sup>(4)</sup> and young-child formulae <sup>(5)</sup>		The maximum level refers to the product as placed on the market.
5.4.3.1	placed on the market as powder	50	
5.4.3.2	placed on the market as liquid	6,0	

6	<b>Other contaminants</b>
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6.1	Nitrates	Maximum levels (mg NO <sub>3</sub> /kg)	
6.1.1	Fresh spinach ( <i>Spinacia oleracea</i> )	3 500	The maximum level does not apply for fresh spinach to be subjected to processing and which is directly transported in bulk from field to processing plant.
6.1.2	Preserved, deep-frozen or frozen spinach	2 000	
6.1.3	Fresh Lettuce ( <i>Lactuca sativa</i> L.) except products listed in 6.1.4		
6.1.3.1	Lettuce grown under cover, harvested 1 October to 31 March	5 000	Lettuce grown under cover has to be labelled as such, otherwise the maximum level levels specified in 6.1.3.2. applies.
6.1.3.2	Lettuce grown in the open air, harvested 1 October to 31 March	4 000	
6.1.3.3	Lettuce grown under cover, harvested 1 April to 30 September	4 000	Lettuce grown under cover has to be labelled as such, otherwise the maximum level levels specified in 6.1.3.4. applies.
6.1.3.4	Lettuce grown in the open air, harvested 1 April to 30 September	3 000	
6.1.4	'Iceberg' type lettuce		Including Grazer Krauthäuptl
6.1.4.1	Lettuce grown under cover	2 500	Lettuce grown under cover has to be labelled as such, otherwise the maximum level levels specified in 6.1.4.2. applies.

6.1.4.2	Lettuce grown in the open air	2 000	
6.1.5	Rucola ( <i>Eruca sativa</i> , <i>Diplotaxis</i> sp., <i>Brassica tenuifolia</i> , <i>Sisymbrium tenuifolium</i> )		
6.1.5.1	harvested 1 October to 31 March	7 000	
6.1.5.2	harvested 1 April to 30 September	6 000	
6.1.6	Processed cereal-based food for infants and young children and baby food <sup>(4)</sup>	200	The maximum level applies to the products ready to use (placed on the market as such or after reconstitution as instructed by the manufacturer).
<b>6.2</b>	<b>Melamine</b>	<b>Maximum levels (mg/kg)</b>	<b>Remarks</b>
6.2.1	Food except products listed in 6.2.2	2,5	The maximum level does not apply to food for which it can be proven that the level of melamine higher than 2,5 mg/kg is the consequence of authorized use of cyromazine as insecticide. The melamine level shall not exceed the level of cyromazine.
6.2.2	Infant formulae, follow-on formulae <sup>(4)</sup> and young-child formulae <sup>(5)</sup>		The maximum level refers to the product as placed on the market.
6.2.2.1	placed on the market as powder	1,0	
6.2.2.2	placed on the market as liquid	0,15	
<b>6.3</b>	<b>Perchlorate</b>	<b>Maximum levels (mg/kg)</b>	<b>Remarks</b>

6.3.1	Fruits and vegetables except of products listed in 6.3.1.1 and 6.3.1.2	0,05	
6.3.1.1	<i>Cucurbitaceae</i> and kale	0,10	
6.3.1.2	Leaf vegetables and herbs	0,50	
6.3.2	Tea ( <i>Camellia sinensis</i> ) (dried product) Herbal and fruit infusions (dried product)	0,75	
6.3.3	Infant formulae, follow-on formulae, food for special medical purposes intended for infants and young children <sup>(4)</sup> and young-child formulae <sup>(5)</sup>	0,01	The maximum level refers to the products ready to use (placed on the market as such or after reconstitution as instructed by the manufacturer).
6.3.4	Baby food <sup>(4)</sup>	0,02	The maximum level refers to the products ready to use (placed on the market as such or after reconstitution as instructed by the manufacturer).
6.3.5	Processed cereal-based food for infants and young children <sup>(4)</sup>	0,01	The maximum level refers to the product as placed on the market.

## ANNEX II

### Definitions

First stage processing	<p>‘First-stage processing’ means any physical or thermal treatment, other than drying, of or on the grain. Cleaning, including scouring, sorting (colour sorting where applicable) and drying procedures are not considered to be “first-stage processing” insofar as the whole grain remains intact after cleaning and sorting.</p> <p>Scouring is cleaning cereals by brushing and/or scrubbing it vigorously, combined with dust removal (e.g. aspiration) The scouring could be followed by a colour sorting before milling.</p> <p>In case scouring is applied in the presence of ergot sclerotia, the cereals need to firstly undergo a cleaning step before scouring.</p> <p>Integrated production and processing systems are systems where all incoming lots of cereals are cleaned, sorted and processed in the same establishment. In such integrated production and processing systems, the maximum level applies in the production chain to the unprocessed cereals before first-stage processing.</p>
Unprocessed products	Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs (OJ L 139, 30.4.2004, p.1).
Placing on the market Final consumer	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety
Botanical preparations	Botanical preparations are preparations obtained from botanicals (e.g. whole, plant parts, fragmented or cut plants) by various processes (e.g. pressing, squeezing, extraction, fractionation, distillation, concentration, drying up and fermentation). This definition includes comminuted or powdered plants, plant parts, algae, fungi, lichen, tinctures, extracts, essential oils (other than the vegetable oils and fats (excluding butter and coconut oil) intended for direct human consumption or use as an ingredient in food), expressed juices and processed exudates.



# WHO-TEQs

The sum of dioxins (polychlorinated dibenzo-para-dioxins [PCDDs] and polychlorinated dibenzofurans [PCDFs]) and the sum of dioxins and dioxin-like polychlorinated biphenyls (PCBs) are calculated using the WHO-toxic equivalency factors (WHO-TEFs) and expressed as WHO toxic equivalents (WHO-TEQs). WHO-TEFs for human risk assessment are based on the conclusions of the World Health Organization (WHO) - International Programme on Chemical Safety (IPCS) expert meeting which was held in Geneva in June 2005 (Van den Berg et al., The 2005 World Health Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds. Toxicological Sciences 93[2], 223-241 [2006]).

Congener	TEF value	Congener	TEF value
<b>Dioxins</b>		<b>"Dioxin-like" PCBs</b>	
<i>Dibenzo-p-dioxins ("PCDDs")</i>		<i>Non-ortho-substituted PCBs</i>	
2,3,7,8-TCDD	1	PCB 77	0,0001
1,2,3,7,8-PeCDD	1	PCB 81	0,0003
1,2,3,4,7,8-HxCDD	0,1	PCB 126	0,1
1,2,3,6,7,8-HxCDD	0,1	PCB 169	0,03
1,2,3,7,8,9-HxCDD	0,1		
1,2,3,4,6,7,8-HpCDD	0,01		
OCDD	0,0003		
		<i>Mono-ortho-substituted PCBs</i>	
2,3,7,8-TCDF	0,1	PCB 105	0,00003
1,2,3,7,8-PeCDF	0,03	PCB 114	0,00003
2,3,4,7,8-PeCDF	0,3	PCB 118	0,00003
1,2,3,4,7,8-HxCDF	0,1	PCB 123	0,00003
1,2,3,6,7,8-HxCDF	0,1	PCB 156	0,00003
1,2,3,7,8,9-HxCDF	0,1	PCB 157	0,00003
2,3,4,6,7,8-HxCDF	0,1	PCB 167	0,00003
1,2,3,4,6,7,8-HpCDF	0,01	PCB 189	0,00003
1,2,3,4,7,8,9-HpCDF	0,01		
OCDF	0,0003		

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Abbreviations used: “T” = tetra; “Pe” = penta; “Hx” = hexa; “Hp” = hepta; “O” = octa; “CDD” = chlorodibenzodioxin; “CDF” = chlorodibenzofuran; “CB” = chlorobiphenyl.”

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- (<sup>1</sup>) Fruits, vegetables and cereals as listed in the relevant category as defined in 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 (OJ L 70, 16.3.2005, p. 1).
- (<sup>2</sup>) 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).

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- (<sup>3</sup>) Foodstuffs listed in this category 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 L181, 29.6.2013, p. 35).
- (<sup>4</sup>) ‘Young-child formulae’ refers to milk-based drinks and similar protein-based products intended for young children. These products are outside the scope of Regulation (EU) No 609/2013 (Report from the Commission to the European Parliament and the Council on young-child formulae (COM(2016) 169 final) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52016DC0169&qid=1620902871447>).
- (<sup>5</sup>) Foodstuffs as defined in Regulation (EU) No 1308/2013 of the European Parliament and of the Council of 17 December 2013 establishing a common organisation of the markets in agricultural products and repealing Council Regulations (EEC) No 922/72, (EEC) No 234/79, (EC) No 1037/2001 and (EC) No 1234/2007 (OJ L 347 20.12.2013, p. 671).
- (<sup>6</sup>) Foodstuffs listed in this category as defined in Regulation (EU) No 251/2014 of the European Parliament and of the Council of 26 February 2014 on the definition, description, presentation, labelling and the protection of geographical indications of aromatised wine products and repealing Council Regulation (EEC) No 1601/91 (OJ L 84, 20.3.2014, p. 14).
- (<sup>7</sup>) Foodstuffs listed in this category as defined in Council Directive 2001/112/EC of 20 December 2001 relating to fruit juices and certain similar products intended for human consumption (OJ L 10, 12.1.2002, p. 58).
- (<sup>8</sup>) Foodstuffs listed in this category as defined in Regulation (EC) No 110/2008 of the European Parliament and of the Council of 15 January 2008 on the definition, description, presentation, labelling and the protection of geographical indications of spirit drinks and repealing Council Regulation (EEC) No 1576/89 (OJ L 39 13.2.2008, p. 16).