

Food Adulteration (Metallic Contamination) (Amendment) Regulation 2018

**Trade Consultation Forum
26 August 2019**

Background

- **The Amendment Regulation**
 - **Publication in the Gazette – 8 Jun 2018**
 - **Tabling at the Legislative Council (LegCo) for negative vetting – 13 Jun 2018**
 - **Completion of scrutiny of the Amendment Regulation – 10 Oct 2018**
 - **Date of commencement – 1 Nov 2019**



Regulation of metallic contamination in food in Hong Kong

- **Food Adulteration (Metallic Contamination) Regulations (Cap. 132V) (the Regulations):**
 - The First and Second Schedules to the Regulations: 19 maximum permitted concentrations (MPCs) of 7 metallic contaminants, namely arsenic, antimony, cadmium, chromium, lead, mercury and tin, in food.
 - Food categories of 4 metallic contaminants (namely arsenic, lead, mercury and tin) cover “all food in solid / liquid form”.



Principles for amending the Regulations

- 1) to replace the existing food categories of “all food in solid form” and “all food in liquid form” with specific MLs targeting individual food / food groups, with a view to aligning with the Codex principle and modern international regulatory trends of specifying metallic contamination standards for individual food / food groups of significant dietary exposure;
- 2) to adopt Codex MLs unless otherwise justified;
- 3) to establish MLs for food / food groups which are of significance to the population in Hong Kong and for which there are no relevant Codex MLs;
- 4) to update the food descriptions and nomenclatures in the Regulations, with reference to the available Codex’s food descriptions and nomenclatures or those of other economies as appropriate; and
- 5) to incorporate interpretation of MLs into the Regulations, given that there is currently no interpretation in the Regulations on how the MPCs can be applied to food in a dried, dehydrated or concentrated form; as well as multi-ingredient products (i.e. compounded food).



The Amendment Regulation

*(Made by SFH under section 55 of the main
Ordinance (Cap. 132))*



Overview of the Amendment Regulation

- Total number of metallic contaminants increase from the existing 7 to 14
 - Additional metals: barium, boron, copper, manganese, nickel, selenium and uranium
- Total number of MLs has increased from the existing 19 to 144
 - Of these 144 MLs, 85 made reference to Codex standards



Key features of the Amendment Regulation

- Date of commencement
- Interpretation
- Food prohibited for sale, etc. if its metal content exceeds certain level
 - Specified food that has gone through a process of drying, dehydration or concentration
 - Portion of the commodity to which the ML applies
 - All ingredients of a compounded food are specified food
- Food prohibited for sale, etc. if its metal level is dangerous or prejudicial to health
- Amendment of Schedules
- Provision to provide for a 12-month grace period in relation to certain food



Specified food that has gone through a process of drying, dehydration or concentration (1)

3(2)(b) the maximum level of a specified metal in a specified food that has gone through a process of drying, dehydration or concentration is to be proportionally adjusted according to the change in the concentration of the metal in the food caused by the process.

- For example, dried seafood, dried vegetables (including dried mushrooms), concentrated fruit juice, etc.
- Not applicable to any ML that is already established for specified foods in a dried, dehydrated or concentrated form, e.g. husked rice, polished rice, wheat flour, pulses, “tea, green, black”, etc.



Specified food that has gone through a process of drying, dehydration or concentration (2)

- Water content of the primary food commodity and food in its dried, dehydrated or concentrated form can be derived from:
 - a) laboratory test results of water content of a food sample before and after drying, dehydration or concentration; and/or
 - b) generally accepted data (e.g. food composition database) regarding the water content of the processed food and its unprocessed counterparts.



Examples of food composition databases

1. ASEAN – Institute of Nutrition, Mahidol University (2014). ASEAN Food Composition Database, Electronic version 1, February 2014, Thailand. Available from: URL: http://www.inmu.mahidol.ac.th/aseanfoods/composition_data.html
2. The Mainland – National Institute of Nutrition and Food Safety, China CDC (2009). China Food Composition (Book 1, 2nd Edition) (available in Chinese). Beijing: Peking University Medical Press.
3. Japan – Ministry of Education, Culture, Sports, Science and Technology (2015). Standard Tables of Food Composition in Japan, Seventh Revised Edition. Available from: URL: http://www.mext.go.jp/en/policy/science_technology/policy/title01/detail01/sdetail01/sdetail01/1385122.htm
4. Korea – National Institute of Agricultural Sciences. Korean Standard Food Composition Table, The 9th Revision. Available from: URL: <http://koreanfood.rda.go.kr/eng/fctFoodSrchEng/engMain>
5. Taiwan - Taiwan Food and Drug Administration. Food Nutrients & Composition Database (New Edition) (available in Chinese). Available from: URL: <https://consumer.fda.gov.tw/Food/TFND.aspx?nodeID=178>



Compounded food

- 3(4) For paragraph (1), if all ingredients of a compounded food are specified food, the maximum level of a specified metal in the compounded food is the sum of the maximum level of the specified metal in each ingredient multiplied by the proportion, by weight, of the ingredient in the compounded food.
- Ingredient means any substance which is used in the manufacture or preparation of food and becomes part of the food as finished, even if in altered form, but excludes any additive within the meaning of regulation 2(1) of the Food and Drugs (Composition and Labelling) Regulations (Cap. 132 sub. Leg. W).



Extract of Part 2 of the Schedule

Part 2			
Maximum Level of Metal in Food			
Column 1	Column 2	Column 3	Column 4
Metal	Food	Maximum Level (mg/kg)	Note
1. Antimony	Vegetables	1	
	Cereals	1	
	Meat of animal	1	Note 1
	Meat of poultry	1	Note 1
	Fish	1	Note 2
	Crabs, prawns and shrimps	1	Note 3



Part 2 of the Schedule – Column 1

- **Part 2 - Maximum Level of Metal in Food**

- 1) Antimony
- 2) Arsenic (expressed as total arsenic)
- 3) Arsenic (expressed as inorganic arsenic)
- 4) Barium
- 5) Boron
- 6) Cadmium
- 7) Chromium
- 8) Copper
- 9) Lead
- 10) Manganese
- 11) Mercury (expressed as methyl-mercury)
- 12) Mercury (expressed as total mercury)
- 13) Mercury (expressed as inorganic mercury)
- 14) Nickel
- 15) Selenium
- 16) Tin
- 17) Uranium



Part 2 of the Schedule – Column 2

- One of the key features of the Amendment Regulation is the adoption of Codex MLs, unless otherwise specified
 - The food descriptions and nomenclatures in the Amendment Regulation also make reference to the latest Codex food classification and product definitions as appropriate.
 - Hierarchy of major types of food listed in Part 2 of the Schedule to the Amendment Regulation as well as their respective food groups and relevant food items, drawing reference to the latest Codex food classification, is illustrated in Annex I of the Guidelines
 - Details regarding the latest Codex food classification and definitions of various food commodities are available at the Codex website



Part 2 of the Schedule – Column 4

- Note 1: Applies to edible portion after removal of bones (if any) and to fat from the meat.
- Note 2: Applies to edible portion after removal of the digestive tract.
- Note 3: Crabs—applies to whole commodity (including the gonads, liver and other digestive organs) after removal of shell and gills.
- Note 4: Cephalopods—applies to edible portion after removal of shell and viscera.
- Note 5: Scallops—applies to edible portion after removal of shell and viscera.
- Note 6: Sea cucumbers—applies to whole commodity after removal of viscera.
- Note 7: Applies to edible portion after removal of shell (if any) and viscera.
- Note 8: Applies to fruit juices (not concentrated) or products reconstituted to the original juice concentration that are ready to drink. Also applies to nectars that are ready to drink.
- Note 9: Applies to fruits or vegetables (as the case may be).
- Note 10: Applies to products that are, or are reconstituted to be, ready to drink.
- Note 11: Applies to beverages that are, or are reconstituted to be, ready to drink.”.



Testing or analysis

- Food laboratories are advised to note that:
 - Portion of the commodity to which the ML applies, i.e.
 - ML of a specified metal in each specified food applies to the edible portion of the food; or
 - if applicable, the portion of the food specified in, or the food in the form specified in, a note referred to in column 4 of Part 2 of the Schedule in relation to the food
- Codex has recommendations on fruit and vegetable samples



Grace period (1)

- During the period between 1 Nov 2019 and 31 Oct 2020 (both dates inclusive), a person who does an act in relation to any food (other than any food specified below) that contains a metal at any level is taken not to have contravened regulation 3 if doing the act immediately before 1 Nov 2019 would not have contravened these Regulations as in force immediately before 1 Nov 2019.
- The specified food as mentioned above are fruit and vegetable and their juice, meat and edible offal and animal and poultry, aquatic animal and poultry egg which—
 - (a) has not been subjected to a process of preservation; or
 - (b) has been preserved by chilling but not freezing.



Grace period (2)

- For food types other than those specified above, their levels of metallic contamination would not contravene the Amendment Regulation if they comply with the existing maximum permitted concentrations prior to the commencement of the Amendment Regulation
- In any event, all food must comply with the Amendment Regulation starting from 1 Nov 2020 when the 12-month grace period has ended



Support to the trade

- Technical meetings
- Guidelines and “Frequently asked questions” are available for download from the website of CFS
(https://www.cfs.gov.hk/english/whatsnew/whatsnew_fstr/whatsnew_fstr_PA_Food_Adulteration_Metallic_Contamination.html)



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