

Proposed Amendments to the Preservatives in Food Regulation (Cap. 132BD)

**1st Technical Meeting
23 August 2023**

Outline

- **Background**
- **Proposed amendments**
- **Public consultation and way forward**

Background

Chief Executive's 2022 Policy Address

- One of the Policy Measures
 - To review and update by phases the food safety legislation relating to additives in food
 - To further enhance food safety
- The first phase
 - To review the standards for preservatives and antioxidants under the Preservatives in Food Regulation (Cap. 132BD)



Use of Preservatives and Antioxidants

● Preservatives

- To restrict the growth of harmful microorganisms
- To protect food against deterioration caused by microorganisms

● Antioxidants

- To protect food against deterioration caused by oxidation
- Deterioration and discolouration of fats and oils

- ✓ Prolong shelf-life
- ✓ Avoid the wastage of food due to spoilage

Regulation of preservatives and antioxidants in Hong Kong

- Preservatives in Food Regulation (Cap. 132BD)
 - Regulates the use of preservatives and antioxidants in food
 - Adopts a positive list approach to regulate
 - ✓ Any food being imported, manufactured for sale or sold
 - ✓ Only contain the specified permitted preservative or antioxidant
 - ✓ In the proportion that does not exceed the specified maximum permitted level (MPL)

Regulation of preservatives and antioxidants in Hong Kong

Cap. 132BD (Schedule 1)

Adopt a “**positive list**” approach to regulate

Clearly listed the preservative or antioxidant permitted for use in food

| Column 1 | Column 2 | Column 3 | Column 4 | | |
|----------|--|--------------------------|--|---|---------|
| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level (ppm, unless otherwise specified) | Note |
| | | INS no. | Name | | |
| 4.5 | Canned or bottled (pasteurized or heat-sterilized) | 210 | Benzoic acid | 800 | Note 20 |
| | | 214 | Ethyl para—hydroxybenzoate | 800 | Note 20 |
| | | 218 | Methyl para—hydroxybenzoate | 800 | Note 20 |
| | | 220 | Sulphur dioxide | 350 | Note 10 |
| | | 512 | Stannous chloride | 20 | Note 11 |
| 4.6 | Jams, jellies, marmalades | 200 | Sorbic acid | 1000 | Note 18 |
| | | 218 | Ethyl para—hydroxybenzoate | 500 | Note 18 |
| | | 220 | Sulphur dioxide | 100 | Note 10 |
| | | 386 | Disodium ethylene diamine tetraacetate | 130 | Note 9 |
| | | | | | |

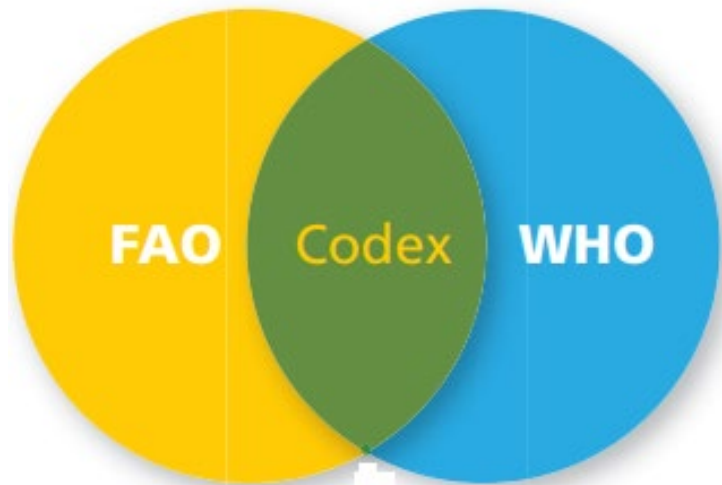
Clearly listed the specified maximum permitted level

Regulation of preservatives and antioxidants in Hong Kong

- Preservatives and antioxidants
 - Mainly applied in processed food
- Sources of processed food
 - Mainly from different parts of the world

- International food standards
 - Removing trade barriers
 - Codex Alimentarius Commission

Codex Alimentarius Commission

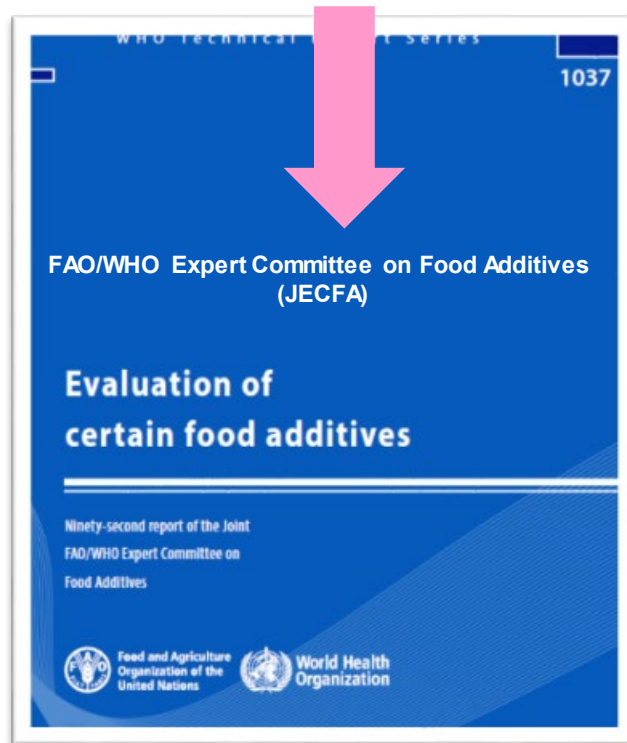


Codex Alimentarius Commission

- Established by FAO and WHO in 1960s
 - 188 member countries and 1 member organisation (the European Union (EU))
 - Codex standards are developed through thorough discussion among its members and adopted by consensus
- International food standards, code of practice
 - Protecting consumer health
 - Ensuring fair international food trade (removing barriers to trade)
 - Recognised by the World Trade Organization as the standard-setting body for food safety
 - The most important international reference

Codex Committee on Food Additives

- Codex Committee on Food Additives (CCFA)
 - Hosted by the Mainland (since 2007)
 - The chair person is from the Mainland
 - Establishes food additive standards
- All additives included in the Codex General Standard for Food Additives (GSFA) (including preservatives and antioxidants)



- Undergone stringent evaluation
- Acceptable for use in foods

Not represent a hazard to health

General Standard for Food Additives

- Preservatives and antioxidants

- Maximum use levels in food

(1) Specify “maximum use level”

Expressed in numerical values

| BENZOATES | |
|---|------------|
| FoodCategory | MaxLevel |
| Dairy-based desserts (e.g. pudding, fruit or flavoured yoghurt) | 300 mg/kg |
| Fat spreads, dairy fat spreads and blended spreads | 1000 mg/kg |
| Fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions | 1000 mg/kg |
| Fat-based desserts excluding dairy-based dessert products of food category 01.7 | 1000 mg/kg |
| Dried fruit | 800 mg/kg |
| Fruit in vinegar, oil, or brine | 1000 mg/kg |
| Jams, jellies, marmelades | 1000 mg/kg |
| Fruit-based spreads (e.g. chutney) excluding products of food category 04.1.2.5 | 1000 mg/kg |
| Candied fruit | 1000 mg/kg |

General Standard for Food Additives

- Preservatives and antioxidants
 - Maximum use levels in food

(2) Use level expressed as “GMP”

Not necessary to express in numerical form

JECFA evaluated the additives

- ✓ Not represent a hazard to health

Codex Alimentarius Commission

- ✓ No need to express “Maximum use level” in numerical form
- ✓ The use of the additives should follow GMP principles

CARBON DIOXIDE

| FoodCategory | MaxLevel |
|--|----------|
| Fermented milks (plain), heat-treated after fermentation | GMP |
| Renneted milk (plain) | GMP |
| Sterilized and UHT creams, whipping and whipped creams, and reduced fat creams (plain) | GMP |
| Peeled or cut fresh fruit | GMP |
| Fresh pastas and noodles and like products | GMP |
| Smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms | GMP |

Proposed amendments

Proposed amendments

- Principles:
 - Keeps the Codex standards as the backbone
 - Supplemented with relevant standards of the Mainland and other major trading partners

- Major areas of the proposed amendments:
 - a) To update the definitions of “preservatives” and “antioxidants”
 - b) To update the permitted preservatives / antioxidants in the “positive list”
 - c) To update / stipulate the MPLs of the permitted preservatives and antioxidants
 - including the list of GMP additives
 - i.e. additives that are acceptable for use in food in general when used as *quantum satis* levels and in accordance with the principles of GMP

Proposed updated definition of preservative

Preservative (防腐劑) means any substance, not normally consumed as a food by itself nor normally used as a typical ingredient of the food, which is added to, or used in or on, food at any food processing stage to prolong its shelf-life by protecting against deterioration caused by microorganisms,

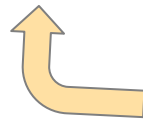
but does not include —

- (a) common salt (sodium chloride);
- (b) sugars;
- (c) alcohol or potable spirits, isopropyl alcohol, monoacetin;
- (d) herbs or hop extract;
- (e) spices or essential oils when used for flavouring purposes;
- (f) any substance added to food by the process of curing known as smoking; or
- (g) any vitamins and minerals added to food as nutrients.

Reference to Codex standard

Proposed updated definition of antioxidant

Antioxidant (抗氧化劑) means any substance, not normally consumed as a food by itself nor normally used as a typical ingredient of the food, which is added to, or used in or on, food at any food processing stage to prolong its shelf-life by protecting against deterioration caused by oxidation, but does not include any vitamins and minerals added to food as nutrients.



Reference to Codex standard

To update the permitted preservatives / antioxidants in the “positive list”

- Keeps Codex standards as the backbone, supplemented with relevant standards of the Mainland and other major food trading partners

| | | |
|---|---|------------------|
| | No. of preservatives / antioxidants under existing Cap. 132BD: | 32 |
| + | No. of new preservatives / antioxidants | 29 (25+4) |
| - | No. of preservatives / antioxidants removed from existing Cap. 132BD: | 3 |
| Total no. of proposed preservatives / antioxidants: | | 58 |

- All newly added preservatives and antioxidants
 - JECFA has conducted stringent evaluation; not represent a hazard to health
- 3 preservatives to be removed (copper carbonate, diphenyl, formic acid)
 - Safe, not represent a hazard to health
 - There are suitable alternatives

Comparison of existing Cap. 132BD and proposed amendments: permitted preservatives and antioxidants

| Preservatives and antioxidants permitted under existing Cap. 132BD | <i>Additional</i> preservatives and antioxidants permitted under proposed amendments |
|--|--|
| 1. Benzoates | 1. Acetic acid, glacial |
| 2. Butylated hydroxyanisole (BHA) | 2. Ascorbic acid, L- |
| 3. Butylated hydroxytoluene (BHT) | 3. Ascorbyl esters |
| 4. Calcium propionate | 4. Calcium acetate |
| 5. Dimethyl dicarbonate | 5. Calcium ascorbate |
| 6. Dodecyl gallate | 6. Calcium lactate |
| 7. Ethoxyquin | 7. Carbon dioxide |
| 8. Ethylenediaminetetraacetates | 8. Citric acid |
| 9. Ferrous gluconate | 9. Citric and fatty acid esters of glycerol |
| 10. Guaiac resin | 10. Erythorbic acid (isoascorbic acid) |
| 11. Hexamethylene tetramine | 11. Glucose oxidase |
| 12. Hydroxybenzoates, para- | 12. Lecithins |
| 13. Isopropyl citrates | 13. Nitrous oxide |
| 14. Lysozyme | 14. Phosphates |
| 15. Natamycin (pimaricin) | 15. Potassium acetate |
| 16. Nisin | 16. Potassium lactate |
| 17. Nitrates | 17. Sodium acetate |
| 18. Nitrites | 18. Sodium ascorbate |
| 19. Octyl gallate | 19. Sodium diacetate |
| 20. ortho-Phenylphenols | 20. Sodium erythorbate (sodium isoascorbate) |
| 21. Potassium propionate | 21. Sodium lactate |
| 22. Propionic acid | 22. Tartrates |
| 23. Propyl gallate | 23. Tocopherols |
| 24. Sodium propionate | 24. Tricalcium citrate |
| 25. Sorbates | 25. Tripotassium citrate |
| 26. Stannous chloride | 26. Benzoyl peroxide (Newly added from Codex standard) |
| 27. Sulphites | 27. Lauric arginate ethylester (Newly added from Codex standard) |
| 28. Tertiary butylhydroquinone (TBHQ) | 28. Rosemary extract (Newly added from other standards) |
| 29. Thiodipropionates | 29. Stearyl citrate (Newly added from Codex standard) |
| 30. Copper carbonate (proposed to remove) | |
| 31. Diphenyl (proposed to remove) | |
| 32. Formic acid (proposed to remove) | |

To update maximum permitted levels

- Keep Codex standards as the backbone, supplemented with relevant standards of the Mainland and other major food trading partners
 - No. of MPLs increased from some 900 to around 2000
 - To update the food category system in light of the latest Codex GSFA

| Column 1 | | Column 2 | | Column 3 | Column 4 |
|----------|--|--------------------------|-----------------------------|---|----------|
| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level (ppm, unless otherwise specified) | Note |
| | | INS no. | Name | | |
| 4.5 | Canned or bottled (pasteurized or heat-sterilized) fruit | 210 | Benzoic acid | 800 | Note 20 |
| | | 214 | Ethyl para—hydroxybenzoate | 800 | Note 20 |
| | | 218 | Methyl para—hydroxybenzoate | 800 | Note 20 |
| | | 220 | Sulphur dioxide | 350 | Note 10 |
| | | 512 | Stannous chloride | 20 | Note 11 |

Phosphates in certain milk products (1)

- Use of phosphates in the following milk products:
 - Sweetened Condensed or Evaporated Milk, Sweetened Condensed Skimmed or Separated Milk and Unsweetened Condensed or Evaporated Milk
 - Butter
 - Cream

Should follow Part III of Schedule 1 to the existing Food and Drugs (Composition and Labelling) Regulations (Cap. 132W)

Phosphates in certain milk products (2)

PART III

ADDITIVES IN CERTAIN MILK PRODUCTS

Division 1—

Additives in sweetened condensed or evaporated milk, sweetened condensed skimmed or separated milk and unsweetened condensed or evaporated milk

| Item | Additive | Maximum Level |
|---------------------------|----------------------|---|
| Acidity Regulators | | |
| 6. | Calcium carbonates | 2 grams per kilogram singly or 3 grams per kilogram in combination, expressed as anhydrous substances |
| 7. | Sodium phosphates | |
| 8. | Potassium phosphates | |
| 9. | Calcium phosphates | |
| 10. | Diphosphates | |
| 11. | Triphosphates | |
| 12. | Polyphosphates | |
| 13. | Sodium carbonates | |
| 14. | Potassium carbonates | |

Division 2— Additives in butter

| Item | Additive | Maximum Level |
|---------------------------|-------------------|----------------------|
| Acidity Regulators | | |
| 1. | Sodium phosphates | 2 grams per kilogram |

Division 3— Additives in cream

| Item | Additive | Maximum Level |
|--------------------|----------------------|--|
| Stabilizers | | |
| 9. | Sodium phosphates | 2 grams per kilogram, whether the additives are used singly or in combination, expressed as phosphorus pentaoxide (P ₂ O ₅) |
| 10. | Potassium phosphates | |
| 11. | Calcium phosphates | |
| 12. | Diphosphates | |
| 13. | Triphosphates | |
| 14. | Polyphosphates | |

Column 2 – Name of the permitted additives (1)

- Proposed amendments in line with Codex GSFA, e.g.

| | Existing Cap. 132BD | Proposed amendments |
|---|---|------------------------------|
| 1 | Benzoic acid | Benzoates |
| 2 | Disodium ethylenediaminetetraacetate | Ethylenediaminetetraacetates |
| 3 | Ethyl para-hydroxybenzoate Methyl para-hydroxybenzoate | Hydroxybenzoates, para- |
| 4 | ortho-Phenylphenol | ortho-Phenylphenols |
| 5 | Sodium nitrate | Nitrates |
| 6 | Sodium nitrite | Nitrites |
| 7 | Sorbic acid | Sorbates |
| 8 | Sulphur dioxide | Sulphites |
| 9 | Thiodipropionic acid | Thiodipropionates |

Column 2 – Name of the permitted additives (2)

- May refer to Annex III of the Consultation Document on their alternative forms

| Item | Permitted preservative or antioxidant (International Numbering System for Food Additives (INS) no.) | Alternative form (if available) (INS no.) in which the permitted preservative or antioxidant may be used |
|------|---|--|
| 1. | Acetic acid, glacial (260) ^{#,^} | No alternative form |
| 2. | Ascorbic acid, L- (300) ^{#,^} | No alternative form |
| 3. | Ascorbyl esters (304, 305) [#] | Ascorbyl palmitate (304) |
| | | Ascorbyl stearate (305) |
| 4. | Benzoates (210-213) | Benzoic acid (210) |
| | | Sodium benzoate (211) |
| | | Potassium benzoate (212) |
| | | Calcium benzoate (213) |
| 5. | Benzoyl peroxide (928) [*] | No alternative form |
| 6. | Butylated hydroxyanisole (BHA) (320) | No alternative form |
| 7. | Butylated hydroxytoluene (BHT) (321) | No alternative form |
| 8. | Calcium acetate (263) ^{#,^} | No alternative form |
| 9. | Calcium ascorbate (302) ^{#,^} | No alternative form |
| 10. | Calcium lactate (327) ^{#,^} | No alternative form |
| 11. | Calcium propionate (282) [^] | No alternative form |
| 12. | Carbon dioxide (290) ^{#,^} | No alternative form |

Column 4 – Notes to MPL (1)

- Provide information regarding the expression of the MPL for specific additives, e.g.

| | Preservative or antioxidant | Expression of MPL | Relevant note in Column 4 |
|----|--|--|---------------------------|
| 1 | Ascorbyl esters | As ascorbyl stearate. | 13 |
| 2 | Benzoates | As benzoic acid. | 6 |
| 3 | Ethylenediaminetetraacetates | As anhydrous calcium disodiummethylenediaminetetraacetate. | 42 |
| 4 | Ferrous gluconate | As iron. | 68 |
| 5 | Hexamethylene tetramine | As formaldehyde | 24 |
| 6 | Hydroxybenzoates, para- | As para-hydroxybenzoic acid. | 26 |
| 7 | Nitrates | As residual NO ₃ ion. | 18 |
| 8 | Nitrites | As residual NO ₂ ion. | 20 |
| 9 | Phosphates | As phosphorus. | 1 |
| 10 | Propionic acid and its calcium and sodium salt | As the acid. | 27 |
| 11 | Sorbates | As sorbic acid. | 9 |
| 12 | Stannous chloride | As tin. | 51 |
| 13 | Sulphites | As residual sulphur dioxide. | 30 |
| 14 | Tartrates | As tartaric acid. | 10 |
| 15 | Thiodipropionic acid | As thiodipropionic acid. | 37 |

**Existing Cap. 132BD:
As NaNO₃ / NaNO₂**

Column 4 – Notes to MPL (2)

- To specify that the MPL applies to certain products of the food category / sub-category, e.g.

| Column 1 | | Column 2 | | Column 3 | Column 4 |
|----------|-------------------------------|--------------------------|---------------------|-------------------------|----------|
| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level | Note |
| | | INS ⁵ no. | Name | | |
| 4.1.1.2 | Surface-treated fresh fruit | 231, 232 | Ortho-phenylphenols | 12 | Note 46 |

Note 46 For use on citrus fruits only.

- To specify that the MPL does not apply to certain products of the food category / sub-category, e.g.

| Column 1 | | Column 2 | | Column 3 | Column 4 |
|----------|--|--------------------------|-------------------|-------------------------|---------------------|
| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level | Note |
| | | INS ⁵ no. | Name | | |
| 4.1.2.4 | Canned or bottled (pasteurized or heat-sterilized) fruit | 512 | Stannous chloride | 20 | Note 51 and Note 52 |

Note 52 Excluding canned pears and canned pineapples.

Column 4 – Notes to MPL (3)

- To specify that a different MPL applies to certain products of the food category / sub-category, e.g.

| Column 1 | | Column 2 | | Column 3 | Column 4 |
|----------|---|--------------------------|-----------|-------------------------|---------------------|
| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level | Note |
| | | INS ⁵ no. | Name | | |
| 4.1.2.8 | Fruit preparations, including pulps, purees, fruit sauces, fruit toppings, coconut milk and coconut cream | 220-228, 539, – | Sulphites | 100 | Note 30 and Note 54 |

Note 54

Except for use in aqueous coconut products at 30 mg/kg

- To specify that the MPL is expressed on fat basis, e.g.

| Column 1 | | Column 2 | | Column 3 | Column 4 |
|----------|-------------------------------|--------------------------|--------------------------|-------------------------|---------------------|
| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level | Note |
| | | INS ⁵ no. | Name | | |
| 2.1.2 | Vegetable oils and fats | 320 | Butylated hydroxyanisole | 200 | Note 12 and Note 34 |

Note 12

Levels of ascorbyl esters, butylated hydroxyanisole, butylated hydroxytoluene, citric acid, dodecyl galalte, guaiac resin, octyl gallate, propyl gallate, ~~stearyl citrate, tertiary butylhydroquinone, thiodipropionates and tocopherols,~~ are calculated against the weight of the fat or oil content of the food.

Column 4 – Notes to MPL (4)

- To specify that the MPL is expressed on “as consumed” basis, e.g.

| Column 1 | | Column 2 | | Column 3 | Column 4 |
|----------|-------------------------------|--------------------------|-----------------|-------------------------|-----------------------|
| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level | Note |
| | | INS ⁵ no. | Name | | |
| 13.1.1 | Infant formulae | 304, 305 | Ascorbyl esters | 10 | Note 128 and Note 137 |

Note 128 On the ready-to-eat basis.

| Column 1 | | Column 2 | | Column 3 | Column 4 |
|----------|-------------------------------|--------------------------|-----------|-------------------------|-------------------------------|
| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level | Note |
| | | INS ⁵ no. | Name | | |
| 14.1.2.3 | Concentrates for fruit juice | 210-213 | Benzoates | 1000 | Note 6, Note 114 and Note 134 |

Note 134 Levels of food additives concerned are measured in the form of the food which is reconstituted according to the instruction of manufacturer or is served to consumer.

Column 4 – Notes to MPL (5)

- To specify the MPL when 2 or more additives have been used in combination, e.g.

| Column 1 | | Column 2 | | Column 3 | Column 4 |
|----------|---|--------------------------|--------------------------|-------------------------|---------------------|
| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level | Note |
| | | INS ⁵ no. | Name | | |
| 1.5.1 | Milk powder and cream powder (plain), including casein and caseinates | 320 | Butylated hydroxyanisole | 100 | Note 12 and Note 14 |
| | | 321 | Butylated hydroxytoluene | 200 | Note 12 and Note 14 |

Note 14

In relation to butylated hydroxyanisole, butylated hydroxytoluene, propyl gallate, octyl gallate, dodecyl gallate and tertiary butylhydroquinone, 2 or more of these food additives can be used in combination only if the following condition is satisfied: when the quantity of each such food additive present in that food is expressed as a percentage of the maximum permitted level, the sum of those percentages does not exceed 100.

| Note | Description |
|------|---|
| 14 | In relation to butylated hydroxyanisole, butylated hydroxytoluene, propyl gallate, octyl gallate, dodecyl gallate and tertiary butylhydroquinone, 2 or more of these food additives can be used in combination only if the following condition is satisfied: when the quantity of each such food additive present in that food is expressed as a percentage of the maximum permitted level, the sum of those percentages does not exceed 100. |
| 19 | Nitrates and nitrites can be used in combination only if the following condition is satisfied: when the quantity of each such food additive present in that food is expressed as a percentage of the maximum permitted level, the sum of those percentages does not exceed 100. |
| 34 | In relation to butylated hydroxyanisole, butylated hydroxytoluene, propyl gallate, octyl gallate, dodecyl gallate and tertiary butylhydroquinone, 2 or more of these food additives can be used in combination only if the combined level does not exceed 200 mg/kg, and the individual maximum permitted levels are not exceeded. |
| 35 | Isopropyl citrates and "citric and fatty acid esters of glycerol" can be used in combination only if the combined level does not exceed 100 mg/kg, and the individual maximum permitted levels are not exceeded. |
| 40 | Butylated hydroxyanisole, butylated hydroxytoluene, propyl gallate, octyl gallate and dodecyl gallate can be used in combination only if the combined level does not exceed 240 mg/kg, and the individual levels of propyl gallate, octyl gallate or dodecyl gallate or mixtures of them do not exceed 80 mg/kg, and the individual levels of butylated hydroxyanisole or butylated hydroxytoluene or mixtures of them do not exceed 160 mg/kg. |
| 41 | Except for use in fat spreads and blended spreads; if benzoates and sorbates are used in combination, the combined use shall not exceed 2000 mg/kg of which the benzoic acid portion shall not exceed 1000 mg/kg. |
| 50 | Benzoates and para-hydroxybenzoates can be used in combination only if the following condition is satisfied: when the quantity of each such food additive present in that food is expressed as a percentage of the maximum permitted level, the sum of those percentages does not exceed 100. |

| Note | Description |
|------|---|
| 81 | Propionic acid, sodium propionate and calcium propionate can be used in combination only if the following condition is satisfied; when the quantity of each such food additive present in that food is expressed as a percentage of the maximum permitted level, the sum of those percentages does not exceed 100. |
| 114 | In relation to benzoates, para-hydroxybenzoates and sorbates, 2 or more of these food additives can be used in combination only if the following condition is satisfied: when the quantity of each such food additive present in that food is expressed as a percentage of the maximum permitted level, the sum of those percentages does not exceed 100. |
| 138 | Ascorbic acid, sodium ascorbate, calcium ascorbate, and ascorbyl palmitate can be used in combination only if the following condition is satisfied: when the quantity of each such food additive present in that food is expressed as a percentage of the maximum permitted level, the sum of those percentages does not exceed 100. |
| 149 | Erythorbic acid (isoascorbic acid) and sodium erythorbate (sodium isoascorbate) can be used in combination only if the following condition is satisfied: when the quantity of each such food additive present in that food is expressed as a percentage of the maximum permitted level, the sum of those percentages does not exceed 100. |
| 151 | In relation to benzoates, para-hydroxybenzoates, sorbates and sulphites, 2 or more of these food additives can be used in combination only if the following condition is satisfied: when the quantity of each such food additive present in that food is expressed as a percentage of the maximum permitted level, the sum of those percentages does not exceed 100. |
| 152 | Butylated hydroxyanisole, butylated hydroxytoluene, propyl gallate, octyl gallate and dodecyl gallate can be used in combination only if the combined level does not exceed 300 mg/kg , and that individual levels of propyl gallate, octyl gallate or dodecyl gallate or mixtures of them do not exceed 100 mg/kg, and the individual levels of butylated hydroxyanisole or butylated hydroxytoluene do not exceed 100 mg/kg and 200 mg/kg respectively, or mixtures of them do not exceed 200 mg/kg. |

Column 4 – Notes to MPL (6)

- To specify that the expression of MPL for natamycin (pimaricin)
 - In line with Codex GSFA
 - Same level as the existing MPL (as mg/dm²) under Cap. 132BD

| Column 1 | | Column 2 | | Column 3 | Column 4 |
|----------|--|--------------------------|-----------------------|-------------------------|---------------------|
| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level | Note |
| | | INS ⁵ no. | Name | | |
| 1.6.1 | Unripened cheese (e.g. cottage cheese, cream cheese and mozzarella cheese) | 235 | Natamycin (pimaricin) | 40 | Note 16 and Note 17 |

Note 17 The level of natamycin (pimaricin) is equivalent to 2 mg/dm² surface application to a maximum depth of 5 mm.

| Column 1 | | Column 2 | | Column 3 | Column 4 |
|----------|--|--------------------------|-----------------------|-------------------------|----------------------|
| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level | Note |
| | | INS ⁵ no. | Name | | |
| 8.3.1.2 | Cured (including salted) and dried non-heat treated processed comminuted meat, poultry and game products | 235 | Natamycin (pimaricin) | 20 | Note 16 and Note 105 |

Note 105 The level of natamycin (pimaricin) is equivalent to 1 mg/dm² surface application to a maximum depth of 5 mm.

Section 3(10) of existing Cap. 132BD

- **Naturally present additive ***

(10) Subsection (1) does not apply to an article of food containing any food additive that is naturally present in that food.



(1) Subject to this section, a person shall not import, manufacture for sale or sell any article of food that contains a food additive.

➤ There is no proposed amendments to the above section

* Refers to preservative or antioxidant

Set out GMP additives in a separate list

- Proposed with reference to the Codex GSFA
 - JECFA conclusion: not represent a hazard to health
 - MPLs not necessary expressed in numerical values
 - Acceptable for use when used at *quantum satis* levels and in accordance with GMP principles
 - Includes 24 preservatives / antioxidants
 - Specify a list that such general use is not applicable to certain food categories or individual food items

List of GMP Additives after the Amendments

| Item | INS no. | Name |
|------|---------|--|
| 1 | 260 | Acetic acid, glacial |
| 2 | 300 | Ascorbic acid, L- |
| 3 | 263 | Calcium acetate |
| 4 | 302 | Calcium ascorbate |
| 5 | 327 | Calcium lactate |
| 6 | 282 | Calcium propionate |
| 7 | 290 | Carbon dioxide |
| 8 | 330 | Citric acid |
| 9 | 472c | Citric and fatty acid esters of glycerol |
| 10 | 315 | Erythorbic acid (isoascorbic acid) |
| 11 | 1102 | Glucose oxidase |
| 12 | 322 | Lecithins |

| Item | INS no. | Name |
|------|----------|--|
| 13 | 942 | Nitrous oxide |
| 14 | 261(i) | Potassium acetate |
| 15 | 326 | Potassium lactate |
| 16 | 283 | Potassium propionate |
| 17 | 280 | Propionic acid |
| 18 | 262(i) | Sodium acetate |
| 19 | 301 | Sodium ascorbate |
| 20 | 316 | Sodium erythorbate (sodium isoascorbate) |
| 21 | 325 | Sodium lactate |
| 22 | 281 | Sodium propionate |
| 23 | 333(iii) | Tricalcium citrate |
| 24 | 332(ii) | Tripotassium citrate |

Total: 24 additives

See Annex V of the Consultation Document

List of Food Categories that the GMP Additives are still Governed by the Relevant Proposed MPLs (if available) in the Amended Cap. 132BD

| No. | Food category |
|---------|--|
| 1.1.1 | Fluid milk (plain), including skimmed, partly skimmed and whole milk |
| 1.1.2 | Other fluid milk (plain) (e.g. plain reconstituted fluid milks, non-flavoured vitamin and mineral fortified fluid milks, lactose reduced milk and plain milk-based beverages), excluding products of food categories 1.1.1, 1.1.3 and 1.2 and their sub-categories (if applicable) |
| 1.1.3 | Fluid buttermilk (plain) |
| 1.2 | Fermented and renneted milk products (plain), excluding flavoured products of food category 1.1.4 and its sub-categories (if applicable), and desserts of food category 1.7 and its sub-categories (if applicable) |
| 1.2.1 | Fermented milks (plain) |
| 1.2.1.1 | Fermented milks (plain), not heat-treated after fermentation |
| 1.2.1.2 | Fermented milks (plain), heat-treated after fermentation |
| 1.2.2 | Renneted milk (plain), excluding flavoured renneted milk products of food category 1.7 and its sub-categories (if applicable) |

1.1.4
not
listed

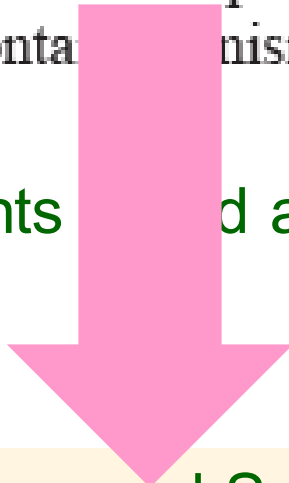
i.e. GMP additives can be applied to the food sub-category "1.1.4 Flavoured fluid milk drinks"

Other proposed amendments (1)

- Section 3(8) of the existing Cap. 132BD specifies that:
 - (8) Any canned food may contain nisin, and any food may contain nisin introduced in the preparation of that food by the use of canned food containing nisin.
- The proposed amendments would add MPLs for nisin in some specified food

| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level (mg/kg, unless otherwise specified) | Note |
|---------|--|--------------------------|------------------------------|---|---------------------|
| | | INS ⁵ no. | Name | | |
| 4.2.2.4 | Canned or bottled (pasteurized or heat-sterilized) or retort pouch vegetables (including mushrooms and fungi, root tubers, pulses and legumes, and aloe vera) and seaweeds | 320 | Butylated hydroxyanisole | 200 | Note 12 and Note 70 |
| | | 321 | Butylated hydroxytoluene | 200 | Note 12 and Note 70 |
| | | 365 | Ethylenediaminetetraacetates | 365 | Note 42 |
| | | 234 | Nisin | 5 | Note 63 |

Other proposed amendments (1)

- Section 3(8) of the existing Cap. 132BD specifies that:
 - (8) Any canned food may contain nisin, and any food may contain nisin introduced in the preparation of that food by the use of canned food containing nisin.
 - The proposed amendments would add MPLs for nisin in some specified food
- 
- We therefore propose to amend Section 3(8):
 - To clarify that canned food (including canned or bottled) with applicable MPLs for nisin in specified food categories should comply with the relevant standards

Other proposed amendments (2)

- The proposed amendments include newly added antioxidants (with MPLs) in specified foods for infants and young children
 - Infant formulae, follow-up formulae, and formulae for special medical purposes for infants
 - Complementary foods for infants and young children

Examples:

| Column 1 | | Column 2 | | Column 3 | Column 4 |
|----------|-------------------------------|--------------------------|--|---|-----------------------|
| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level (mg/kg, unless otherwise specified) | Note |
| | | INS ⁵ no. | Name | | |
| | infants | | | | |
| 13.1.1 | Infant formulae | 304, 305 | Ascorbyl esters | 10 | Note 128 and Note 137 |
| | | 330 | Citric acid | GMP | |
| | | 472c | Citric and fatty acid esters of glycerol | 9000 | Note 128 and Note 136 |
| | | 322 | Lecithins | 5000 | Note 128 |
| | | 307a, b, c | Tocopherols | 10 | Note 128 |

| Column 1 | | Column 2 | | Column 3 | Column 4 |
|----------|---|--------------------------|--|---|----------------------|
| No. | Food category or sub-category | Permitted food additives | | Maximum permitted level (mg/kg, unless otherwise specified) | Note |
| | | INS ⁵ no. | Name | | |
| 13.2 | Complementary foods for infants and young children, excluding products of food category 13.1 and its sub-categories (if applicable) | 300 | Ascorbic acid, L- | 500 | |
| | | 304, 305 | Ascorbyl esters | 200 | Note 12 and Note 137 |
| | | 302 | Calcium ascorbate | 200 | Note 139 |
| | | 263 | Calcium acetate | GMP | |
| | | 330 | Citric acid | 5000 | Note 140 |
| | | 472c | Citric and fatty acid esters of glycerol | 5000 | |

Other proposed amendments (2)

- “Newly added” antioxidants
 - Update making reference to the Codex standards
 - Related standards in other places (e.g. EU, Australia, New Zealand, Singapore, etc.)
 - Evaluated by JECFA as no health concern
- Currently, they may be present in foods for infant and young children
 - Excluded from the definition of antioxidants under existing Cap. 132BD
- Section 4 of the existing Cap. 132BD specifies that:
 - Food containing antioxidant not to be recommended for babies and young children
- Consider appropriate adjustment to Section 4

Other proposed amendments (3)

- “Liquid foam headings” and “Gelatin capsules” under food category 15 are proposed to be deleted from Cap. 132BD
 - neither Codex nor our major food trading partners such as the Mainland, the EU, Singapore, Australia/New Zealand, United States and Canada have set any maximum levels for food additives in these two items

Other proposed amendments (4)

- Unit for the proposed MPLs
 - Will be changed from “ppm” to “mg/kg”
 - Following the Codex GSFA

Summary

Summary of the proposed amendments to Cap. 132BD

- Definitions of “preservatives and antioxidants”
 - Update with reference to the definitions adopted by Codex
- Total number of permitted preservatives and antioxidants will increase from 32 to 58
 - Among them, 24 are GMP additives
 - Will be set out in a separate list in the amended Cap. 132BD (see Annex V)
- MPLs of the permitted preservatives / antioxidants in specific food categories would be updated / stipulated (see Annex IV)

Transitional period (1)

- Propose a transitional period of 18 months after enactment of the amended legislation
 - Processed foods have longer shelf-lives
 - Allow adequate time for the trade to get prepared for the updated standards
 - Allow local laboratories to build up testing capacities
- Will update the “Preservatives and Antioxidants User Guidelines”
 - To assist the trade to better understand that amendments and facilitate their compliance

Transitional period (2)

- During the transitional period
 - It is legally in order for any single food item to comply with the relevant standards in either the existing Cap. 132BD or the amended Regulation
 - After this transitional period, all food sold in Hong Kong shall have to comply with the amended Regulation
 - The above proposal is the same as the transitional arrangement in Preservatives in Food (Amendment) Regulation 2008

Public consultation and way forward

- The 3-month public consultation will end on 28 August 2023
- Plan to introduce the legislative amendments to the Legislative Council in late 2023 / early 2024

Views sought

- Please send your comments to the CFS by post, facsimile or e-mail within the consultation period (i.e. from 29 May 2023 to **28 August 2023**) –

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Thank you