

# **Article 1. General Provisions**

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## 1. General Principles

This Food Code shall be principally interpreted and applied by general provisions, except as otherwise specified.

- 1) This Food Code contains the following items.
  - (1) Standard about methods of manufacturing, processing, using, cooking, storing foods and specification about food components under the regulations of Paragraph 1 in Article 7 of Food Sanitation Act.
  - (2) Standard about manufacturing methods of utensil, container, packaging and specification about utensil, container, packaging and their raw materials under the regulations of Paragraph 1 in Article 9 of Food Sanitation Act.
  - (3) Labeling standard about food, food additives, utensil, container, packaging and GMO under the regulations of Paragraph 1 in Article 10 of Food Sanitation Act.
- 2) Weights and measures shall be applied by the metric system and are indicated in following codes.
  - (1) Length : m, cm, mm,  $\mu\text{m}$ , nm
  - (2) Volume : L, mL,  $\mu\text{L}$
  - (3) Weight : kg, g, mg,  $\mu\text{g}$ , ng, pg
  - (4) Area :  $\text{cm}^2$
  - (5) Calorie : kcal, kJ
- 3) Weight percentage is indicated with the symbol of %. However, material content (g) in 100 mL solution is indicated with w/v% and material content (mL) in 100 mL solution with v/v%. Weight parts per million may be indicated with the symbol of mg/kg, ppm, or mg/L.
- 4) Temperature indication adopts Celsius( $^{\circ}\text{C}$ ) type.
- 5) Standard temperature is defined as  $20^{\circ}\text{C}$ , and ordinary temperature as  $15\sim 25^{\circ}\text{C}$ , and room temperature as  $1\sim 35^{\circ}\text{C}$ , and slightly warm temperature as  $30\sim 40^{\circ}\text{C}$ .
- 6) Except as otherwise specified, cold water is defined as water of  $15^{\circ}\text{C}$  or lower, hot water as water of  $60\sim 70^{\circ}\text{C}$ , boiling water as water of about  $100^{\circ}\text{C}$ , and heating temperature "in/under water bath" is, except as otherwise specified, defined as about  $100^{\circ}\text{C}$  and water bath can be replaced with steam bath of about  $100^{\circ}\text{C}$ .
- 7) Cold and dark place, except as otherwise specified, means a place of  $0\sim 15^{\circ}\text{C}$  without light.
- 8) Water used in the test is, except as otherwise specified, distilled water or purified water.
- 9) Solution, of which solvent is not marked, means aqueous solution.
- 10) Decompression means, except as otherwise specified, the pressure of 15 mmHg or lower.

- 11) pH is, except as otherwise specified, determined as acidic, alkaline or neutral by Litmus test. Detailed pH is described as pH. Strongly acidic is defined as about pH 3.0 or lower, weakly acidic as about pH 3.0~5.0, slightly acidic as about pH 5.0~6.5, neutral as about pH 6.5~7.5, slightly alkaline as about pH 7.5~9.0, weakly alkaline as about pH 9.0~11.0, and strongly alkaline as about pH 11.0 or higher.
- 12) Indication of solution concentration such as (1→5), (1→10), (1→100) etc. means that solid reagent of 1 g or liquid reagent of 1 mL is dissolved in solvent to produce each 5 mL, 10 mL, 100 mL etc. Indication such as (1+1), (1+5) etc. means that solid reagent of 1 g or liquid reagent of 1 mL is mixed with solvent of 1 mL or 5 mL. If solvent is not marked, solution is diluted by water.
- 13) Indication of mixture such as (1:1), (4:2:1) etc. means the mixed volume ratio of liquid reagent or the mixed weight ratio of solid reagent.
- 14) When 20 drops of distilled water are loaded at 20°C in measuring the number of water drop, the weight of 20 drops shall be in the range of 0.90~1.10 g.
- 15) Nessler's tube is a flat bottom tube, which is made with colorless glass of inner diameter (ID) 20 mm, outer diameter (OD) 24 mm, and length 20 cm from its bottom to the bottom of stopper, and its volume shall be 50 mL. The difference between scales in each tube shall be not more than 2 mm.
- 16) Atomic weight is based on the latest Table of Standard Atomic Weights.
- 17) When pass/fail is determined by the comparison of acquired value (experimental value) from test with specified value (standard value) in test, the experimental value shall be rounded off to the nearest whole number in one place number more than standard value and then compared to decide against standard value. Indication of standard value such as a~b means the range from a to b.
- 18) "Precisely measuring" weight is said to measure weight to 0.1 mg, 0.01 mg, or 0.001 mg in consideration of minimum weight unit. "Correctly measuring" weight is said to measure the weight of specified value to 2 decimals.
- 19) Indication of sampling quantity with "about" is said to take the sample of recorded quantity in a range of 90~110%, except as otherwise specified.
- 20) Record of "constant weight" in drying or heating means that weight difference between weight firstly measured in drying or heating and weight secondly measured in one more drying or heating for one hour shall be within 0.1% of firstly measured weight. However, if the weight difference is not more than 0.5 mg in measuring by chemical balance or not more than 0.01 mg by micro-chemical balance, it is regarded as "constant weight".
- 21) Desiccator's drying agent is silica gel, except as otherwise specified.
- 22) Test shall, except as otherwise specified, be performed at the normal temperature and observed within 30 seconds after operation. However, test, which is affected by temperature, shall be performed at a standard temperature.
- 23) "Tar color" is said to contain its aluminum lake.

- 24) "Preservatives" described in Article 5 mean "dehydroacetic acid and its salts (sodium), sorbic acid and its salts (potassium and calcium), benzoic acid and its salts (sodium, potassium, and calcium), p-hydroxybenzoates (methyl, butyl, ethyl, propyl, isobutyl, and isopropyl), and propionic acid and its salts (sodium and calcium)."
- 25) "Antioxidants" described in Article 5 mean "butylated hydroxy toluene, butylated hydroxy anisole, tert-butylhydroquinone, propyl gallate, sodium EDTA, and calcium disodium EDTA."
- 26) This Food Code classifies processed foods following Food Class (Large Classification), Food Species (Medium Classification), and Food Type (Small Classification).

Food Class : Beverages and seasoning foods, which are classified in 'Article 4. Specifications for General Processed Food outside the Scope of Standards & Specifications for Each Food Product(Article 5)' and ' Article 5. Standards & Specifications for Each Food Product'

Food Species : Processed grain, fruits vegetable beverages, carbonated beverages, vinegar etc. which are classified in Food Class.

Food Type : Fruit/vegetable juice concentrates, fruit/vegetable juice, fermented vinegar, synthetic vinegar, etc. which are classified in food species (including fine classification) (however, food species without food type can be said to be food type)

- 27) Pass/Fail determination about standards & specifications designated in this Food Code is principally performed and judged by the test method specified in this Food Code. However, when a method is judged to be more precise than the test method specified in this Food Code, the method can be used. Specially, test about microorganism or toxin etc. may be performed with commercial kit. However, when its result is suspected, the test shall be performed and judged through the specified method.
- 28) Pass/Fail determination about hazardous substances such as pesticide residues, veterinary drugs, heavy metals, etc. of which standards & specifications are not specified in this Food Code, may tentatively conform to CODEX (CAC Codex Alimentarius Commission). Where there is no CODEX regulation, KFDA Commissioner can set specification after totally comprehensively reviewing relevant data about materials such as foreign countries' standards and specifications, Acceptable Daily Intake (ADI), related food intake, etc.
- 29) In case of no test method specified in 'Article 5. Standards & Specifications for Each Food Product' of this Food Code, relevant test method of 'Article 10. General Testing Methods' can be applied. In the event that standards & specifications are not designated in this Food Code or test method is not stated even though standards & specifications are designated, test can be performed in accordance with the test methods stated in CODEX regulation, AOAC (Association of Official Analytical Chemists), and PAM (Pesticide Analytical Manual). In cases where the above test method is not available, authorized test methods, which are specified in other regulations or internationally recognized, can be applied and then the test method shall be submitted.

## 2. Definition

- 1) "Definition" specifies individual food and the food, that is not classified into "Food Type", may be subject to the Standards & Specifications of individual food provided it is in conformity to its "Definition". However, in case that separate Standards & Specifications are specified, the food shall be subject to that Standards & Specifications.
- 2) "A, B, C.....etc." is a concept, in which general things are stated as an illustration concept and otherwise relevant things are included.
- 3) "A or B" means "A and B", "A or B", and "only A" or "only B", and the same applies to "A, B, C or D".
- 4) "A and B" must satisfy both A and B.
- 5) "Appropriate ○○ step (process)" refers to a process necessary to the manufacturing & processing of individual food and is called a general method or a scientifically sufficiently proven method to acquire the safety & wholesomeness of food.
- 6) "Food and Food Additive" shall meet Standards & Specifications of Individual Food Additive in accordance with Food Additive Code.
- 7) "Shall be stored and managed" implies that food is stored and managed in a manner to maintain sufficiently its quality in accordance with its raw material's property.
- 8) "Within the limits of possibility", "be advised to" and "be possible to" mean recommendation items to be set in order to induce the development of hygiene level and quality.
- 9) "Method with equivalent effective to, or more effective than this" is a method to be capable of maintaining nutritional or sensory quality as well as hygiene as a general method or a scientifically sufficiently proven method except for stated method.
- 10) "○○%, not less than ○○%, not more than ○○%, less than ○○%", which is stated in the Definition or Food Type, refers to the criteria for the combination of raw material as ingredient mixture standard.
- 11) "Characterizing ingredient" as a raw material for processed food refers to the edible part of single food stated in 1.3. Classification of Food Raw Material.
- 12) "Dried product (drained product)" refers to a product with water content of 15% or less as drained product, which remains after drying raw material, unless other specification is designated.
- 13) "Solid food" includes paste or syrup or gel food, which is not drunk directly and apparently solid paste.
- 14) "Liquid food" refers to a food to drink directly or prepared by concentrating the liquid as it is.
- 15) "Pill food" refers to a food product in a spherical shape.
- 16) "Granule food" refers to a food product in a granular shape.
- 17) "Powder food" refers to a food of which particle size is smaller than that of granules.

- 18) "Fried or oil-treated products" refers to a food manufactured/processed by oil-treatment such as edible oil and fat spray after forming or frying it by edible oil and fat in the manufacturing process of food.
- 19) "Sell by date" refers to a maximum period in which the product can be sold to customers.
- 20) "Specification" refers to the specification of final product.
- 21) "Must not be detected" means not to be detected by test, which is specified in this Code.
- 22) "Originated from raw material" can be acknowledged provided a recognized data or a literature proves that the raw material is in conformity to each Standards & Specifications or it is inevitably originated from good-quality raw material.
- 23) Preservation temperature of frozen chilled food means, except for separately specified in this code, that frozen temperature is not higher than -18 °C and chilled temperature is 0~10 °C.
- 24) "Foreign material" refers to substance, which is not the component of normal food, such as arthropod & its egg, larva, excrement, rodent & insect's parasite trace, animal's fur, excrement, parasite & its egg as animal foreign material; different plants & their seeds, mold, straw, chaff etc. as botanical foreign material; and soil & sand, glass, metal, ceramic fragment etc. as mineral foreign material.
- 25) "Disinfection" means to destroy the nutritive cell of most microorganisms, such as bacillus, yeast, mold etc. except as otherwise specified.
- 26) "Sterilization" means to destroy the nutritive cell & spore of microorganism to be aseptic, except as otherwise specified.
- 27) "Sealing" means to intercept the ventilation of air to inside & outside of container or packaging.
- 28) "Supercritical extraction" means the extraction of food components using the liquified carbon dioxide at the above critical temperature (the temperature at which the gas phase is turned into the liquid phase) and critical pressure (the lowest pressure required to liquefy a gas at critical temperature).
- 29) "Processed food" refers to a food manufactured, processed, and packaged by adding food or food additives to food raw materials (agricultural, forestry, livestock, or marine products), transforming food raw materials (such as grinding or cutting) till their original forms cannot be recognized, or mixing such transformed ones or adding food or food additives to such mixture. However, where, without the use of food additives or other materials, the agricultural, forestry, livestock, or marine products are simply cut, peeled, salted, ripened, or heated (except the cases where heating is performed for sterilization or heating causes significant changes to those products) till their original forms can be recognized or where sanitary risks from treatment processes are not expected and food raw materials are simply treated so as to allow organoleptic identification of food quality, such food products are excluded from the definition of the processed food.
- 30) "Water for food" means water used in the manufacture, processing, and cooking of foods.
- 31) "Long-term storage food" refers to a food manufactured and processed to allow long-term distribution and storage.
- 32) "Deep sea" means the sea of which the depth is more than 200 meters and to which the sunlight is not reached.

- 33) "Alcohol treatment" means the method of dipping a food product in alcohol or spraying a product with alcohol during the manufacture of the food product.
- 34) Geonsam (including Taegeuksam) means the ginseng dried under sunlight, hot air, or others without boiling. Hongsam means the ginseng made by steaming or boiling and drying green ginseng. "Ginseng Concentrate and Hongsam Concentrate" mean the ginseng product made by performing extraction of green ginseng, Geonsam, and Hongsam with water, alcohol, or a mixture of water and alcohol, filtering the extract, and concentrating the filtrate.
- 35) "Bivalves" means shellfish consisting two shells, such as clam, oyster, mussel, scallop, sea mussel, red shell, comb pen shell, egg cockle, hen clam, surf clam, razor clam, short-necked clam and butter clam.
- 36) "Chilled-temperature measurement value" means the highest value among measurement of inside temperature of refrigerator or cold storage equipment.

### 3. Classification of Food Raw Material

The following classification of food raw material is a general classification but may not be defined according to the characteristics and purpose of food and its raw materials.

#### 1) Vegetable raw material

- (1) Cereal : rice, barley, wheat, rye, oat, millet, indian millet, corn, buckwheat, adlay, millet, Japanese millet quinoa, triticale, etc.
- (2) Bean : bean, small red bean, mung bean, kidney bean, garden pea, cow pea, broad bean, lima bean, Egypt bean, green bean, black bean, lens bean, etc.
- (3) Potato : potato, sweet potato, cassava, yam, taro, yard, tapioca, etc.
- (4) Vegetables
  - ① Leaf vegetables : brown mustard, beet, cauliflower, scallion, Angelica keiskei Koidz (Angelica keiskei), water dropwort, Chinese cabbage, Belgian endive, leek, broccoli, brussel sprouts, lettuce, celery, spinach, crown daisy, asparagus, mallow, cabbage, lettuce, kale, stone-leek, leek, parsley, pakchoi, etc.
  - ② Root vegetables : radish, turnip, carrot, onion, lotus root, burdock, etc.
  - ③ Fruit vegetables : cucumber, pumpkin, tomato, eggplant, okra, strawberry, melon, melon, watermelon, courgette, pickled muskmelon, etc.
- (5) Fruit : persimmon, citrus (mandarin orange, orange, grapefruit, lemon, lime, citron, kumquat, trifoliate orange, mandarin etc.), fruit of the Actinidia arguta, jujube, mango, plum, Chinese quince, fig, banana, pear, cherry, peach, loquat, apple, jujube, apricot, pomegranate, avocado, acerola, cherry, mulberry, plum, akebiaseed, plum, kiwi, pineapple, papaya, grape, black currant, durian, rambutan, mangosteen, cherry, bilberry, coconut, ambergris, etc.

- (6) Nut or tree nuts : peanut, almond, hazelnut, chestnut, walnut, pine nut, pecan, ginkgo, acorn, macadamia, pistachio, cashew, etc.
- (7) Oil plant : sesame, green perilla, black sesame, sunflower, olive, sunflower, cottonseed, rape (Canola) seed, palm, safflower seed, etc.
- (8) Flavor plant : mustard, cinnamon bark (cinnamon), drummer fruit, red pepper, ben, badian, rosemary, garlic, myrrh, basil, peppermint, thyme, saffron, Chinese pepper, ginger, peppermint, cardamon, bay leaves, nutmeg, dried clove buds, purple perilla plant, paprika, pimento, fennel, pepper, etc.
- (9) Mushroom : *Macrolepiota procera*, *Pholiota nameko*, oyster mushroom, black fungus, *Umbilicaria esculenta*, matsutake fungus, *Pamaria botrytis*, *Agaricus bisporus*, *Ganoderma lucidum* karst, winter mushroom, shiitake fungus, *Craterillus aureus* Berk. et Curt, *Agaricus blazei*, etc.
- (10) Sweetening Food : sugar beet, sugarcane, sweet sorghum, licorice, etc.
- (11) Palatable plant : *Cassiae Semen*, *Lycii Furctus*, (Chinese matrimony vine(fruit)), *Angelica*(Leaf, root), *eucommiae cortex*(leaf, bark), mate, five-leaved aralia, *Schizandra* Fruit, jasmine, tea(*Camellia sinensis*), chicory, chamomile, cacao, coffee, cocoa, hop, etc.
- (12) Wild plant : royal fern, bracken, *Ligularis fischeri*, pickpurse, wild rocambole, *Codonopsis lanceolata*, root of bellflower, sedum, *Gynostemma pentaphyllum* makino, fatsia shoots, Korean solomon's seal, valerianaceous plant, coltsfoot, water plant, Korean bramble, raspberry, *atractylodis rhizoma*(young sprouts), pine needles, *Artemisia*, Korean *Ixeris*, day lily, *Adenophora triphylla*, plantain (young leaf), easter lily, fragrant edible wild aster, arrowroot (radices), etc.
- (13) Algae : seaweed *papulosa*, ulva, *Ecklonia stolonifera*, laver, sewing thread, sea tangle, tenella, stone laver, sea weed, *Capsosiphon fulvescens*, gulf weed, sea mustard, *Gloiopeltis furcata*, *Campylaephora hypnaeoides*, spirulina, ceylon moss, *Chondrus ocellatus*, *Codium fragile*, chlorella, sea-weed fusiforme, sea lettuce ,etc.

## 2) Animal Material

- (1) Meat : beef, pork, lamb, goat, rabbit, horse, deer, hen, pheasant, duck, goose, turkey, quail, etc.
- (2) Milk : milk, goat milk, etc.
- (3) Fish : bonito, snakehead, stingray, flatfish, cutlassfish, *Collichthys nireatus* Jordan et starks, mackerel, saury, flying fish, flatfish, young walleye pollack, spotty belly greenling, sea bass, tuna, cod, hard-finned sandfish, sea bream, red sea bream, goby, catfish, anchovy, Alaska pollack, loach, sciaenoid fish, *Areliscus rhomaleus*, yellow tail, shad, eel, whitebait, harvest fish, globefish, *Malakichthys wakiyai* Jordan et Hubbs, dark-banded rockfish, crucian, sea eel, smelt, Spanish mackerel, shark, sailfish, sole, trout, gray mullet, *Parapercis sexfasciatus* Temminck et Schlegel, mandarin fish, sand

eel, salmon, rockfish, black cod, sweetfish, Atka mackerel, carp, eel, horse mackerel, gizzard shad, sardine, yellow corvina, shad fish, filefish, *Pseudorasbora parva*, herring, Israel carp, skate, etc.

- (4) Deepsea fish : marbled rockfish (except inshore fish), broad alfonsino, broadnose sevengill shark, brown banded bamboo shark, salmon shark, shortfin mako, oilfish, spiny dogfish, *Sphyrna zygaena*, ghost shark, blue shark, Blacktip shark, sawedged perch, pink cusk eel, *Allocyttus niger*, *Pseudocyttus maculatus*, *Hoplostethus atlanticus*, red flatfish, marbled eel (except inshore fish), *Seriotelele punctata*, patagonian toothfish, *Merluccius australis* (limited to those from New Zealand), etc.
- (5) Tuna and marlin : bluefin tuna, southern bluefin tuna, Albacore tuna, bigeye tuna, yellowfin tuna, sailfish, striped marlin, blue marlin, black marlin, sword fish, longtail tuna, skipjack tuna, mackerel tuna, bullet mackerel, frigate mackerel, etc.
- (6) Shellfish : oyster, sea mussel, ark shell, marsh clam, conch, cowrie, clam, ear shell, short-necked clam, shellfish, etc.
- (7) Crustacea : shrimp, crab, lobster, crayfish, small crab, krill, etc.
- (8) Mollusk : octopus, squid, small octopus, cuttlefish, *urechis unicinctus*, sea hare, beka squid, *octopus ocellatus*, jellyfish, etc.
- (9) Echinodermata or Chordata : sea urchin, sea slug, ascidian, warty sea squirt etc.
- (10) Egg : hen's egg, duck egg, quail's egg, etc.
- (11) Fish egg : Alaska pollack roe, salmonberries, caviar, etc.
- (12) Others : grasshopper, pupa, edible frog, edible snail, edible soft-shelled turtle, crocodile meat, ostrich, kangaroo meat, badger, nutria, etc.

### 3) Others

ginseng (root/leaf), bamboo (bamboo shoots/leaf), korosoe sap, Korean birch sap, birds nest, ginseng cultivation (Tissue culture method requires prior review), etc.