

**Article 2. Common Standards & Specifications for
General Foods**

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1. Application of Standards & Specifications

The following standards and specifications shall apply to the foods, food additives, utensils, containers, and packaging (hereinafter referred to as "foods etc.").

- 1) For foods etc. specified in 'Article 4. Standards & Specifications for General Processed Foods outside the Scope of Standards & Specifications for Each Food Product', 'Article 5. Standards & Specifications for Each Food Product', and 'Article 7. Standards & Specifications for Equipments, Containers and Packages for Each Food Products' shall be followed.
- 2) Foods etc. shall meet the requirements specified in 'Article 2. Common Standards & Specifications for General Foods'. However, if some requirements are not necessarily required or they are not practical due to the nature of the foods etc., the requirements may be selectively applicable.
- 3) The long-storage foods shall meet the standards and specifications of the above 1) and those specified in 'Article 3. Specifications for Long Shelf-life Foods (except non-heat-processed meat or fish products)'. If there are different standards and specifications, stricter ones shall be applicable.
- 4) Meat products among the instant manufacture and processing foods, ice creams, and livestock products manufactured, processed, and distributed in accordance with the Livestock Processing Act shall meet the standards for livestock processing and specifications for ingredients.

2. Food Raw Material

1) Requirements of Raw Material

- (1) Raw material shall have good quality and freshness, and not be decomposed, deteriorated or polluted by toxic/hazardous matter etc., and be safe.
- (2) When natural raw material which doesn't need to permit(notify) for food manufacture and processing is treated directly to use as a raw material of processed food product, foreign materials such as soil, sand, dust etc., shall be sufficiently removed and shall be washed if necessary by drinking water and its non-edible parts shall be sufficiently removed.
- (3) In case of purchasing food raw material to be permitted, the material shall have obtained approval to manufacture and operate or completed an import report. In addition, it shall be suitable to the Standards & Specifications of appropriate food and not be used as the raw material for poor & bad food like expired product.
- (4) Foods and food additives shall meet the applicable standards and specifications, the alcoholic products shall meet the quality standards as specified in the Liquor Tax Act, the ginseng and red ginseng shall meet the standards as specified in the Ginseng Industry Act, the livestock and their processed products shall meet the standards as specified in the Livestock Processing Act.
- (5) Water used in the manufacture, processing, and cooking of food products shall meet the drinking water standards prescribed in the Management of Drinking Water Act.

- (6) Raw material used in Eicosapentanoic acid (EPA) and/or DocosaHexaenoic Acid (DHA), shall not contain ethyl- or methyl ester chemicals of this fatty acid other than triglyceride with an aim to control those contents.
- (7) Raw material used in processed pollen food shall be collected by bees or other methods but foreign materials shall not be included.
- (8) Microorganisms recognized as safe shall be used in the manufacture of products containing enzymes or containing fermented plant extracts.
- (9) Lactic acid bacteria used in food containing lactic ferments shall be edible and hygienically safe.
- (10) Chlorella as raw material for chlorella food and spirulina as the raw material for spirulina food shall be purely cultivated.
- (11) Raw material used in chitosan processed food shall be made from a shell of crustacean (crab, shrimp etc.) that is capable of extracting non-polluted chitosan.
- (12) Raw material used in processed propolis extract shall be collected by bee and not be polluted.
- (13) The minimum quantity (not more than 5% of the extract may be used but daily maximum intake cannot exceed 6 g) of *Garsinia Cambogia* rind extract shall be used as the material of food for weight loss.
- (14) Food material shall be hygienically stored in an appropriate manner to keep its quality and fish & shellfish shall be in refrigeration. Frozen fish flesh shall be preserved at less than -18°C and easily deteriorated raw material, such as olive flesh for compressed olive oil, shall be less than -10°C respectively.
- (15) In case of using crushed material as raw material, it has good freshness and shall not be decomposed and deteriorated or polluted by foreign materials.
- (16) Ginseng or Red Ginseng Products
 - ① Dried 1-year-old ginseng, 1-year-old ginseng, the skin of peeled and dried ginseng, ginseng skin shall not be used. Damaged ginseng can be used after removing the damaged part.
 - ② Foreign material is not included in ginseng leaf and the leaf, stem or flower of damaged ginseng shall not be used.
 - ③ Fresh ginseng shall be more than 3-year-old but damaged or bruised ginseng cannot be used.
- (17) If it is intended to use as raw materials the agricultural, livestock, and fishery products cultivated or raised using the recombinant DNA technology that selects useful genes from an organism's genes and inserts them into another organism, such materials shall pass the safety evaluation process in accordance with the "Regulation on Safety Evaluation and Review of Recombinant DNA Derived Products" as specified in Articles 15-1 of the Food Sanitation Act.
- (18) The following gelating agents shall not be used as raw materials for the manufacture of jelly products or cup-shaped sweets.
 - ① Konjak, glucomannan

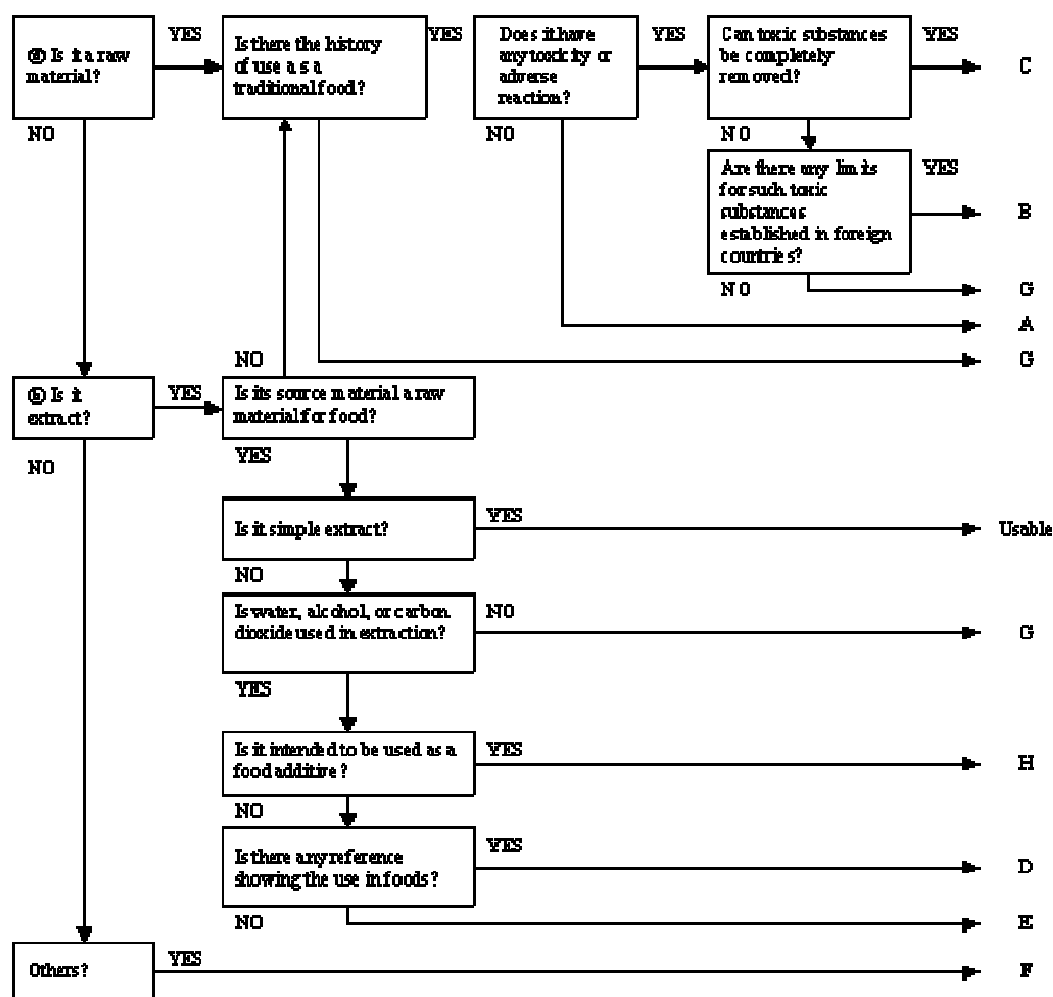
(19) Others

- ① Products containing the lacquer component derived from the lacquer tree shall be used only for cooking the rooster or duck in lacquer-containing water. However, the urushiol component shall not be detected in the lacquer component used.
- ② Grayanotoxin III shall not be detected in honey.

2) Acceptance Criteria for Raw Material

- (1) The following materials shall not be used in manufacturing, processing, or cooking of food products. However, those authorized by the Ministry of Health and Welfare or the Commissioner of the Korea Food and Drug Administration may be used.
 - ① Those not collected, handled, processed, manufactured, or controlled for the purpose of being used for food
 - ② Those of which the safety and suitability as raw materials for use in food products are not established.
 - ③ Others determined as inappropriate for use in food products by the Commissioner of the Korea Food and Drug Administration
- (2) For those not falling into one of three categories in the above (1), the Commissioner of the Korea Food and Drug Administration shall determine if a specific material can be used as raw material for food products. However, if there is new information relating to safety, the relevant material will be subjected to re-consideration to determine its suitability for use in foods.
- (3) If a material does not have any toxicity or adverse reactions and it has any references demonstrating that it has been used in foods in addition to its uses for the purposes of appetite loss or pharmacologic effects, it may be determined to be used as "raw material" or "raw materials for limited use".
- (4) The following materials may be determined as "raw materials for limited use" and their use may be limited to specified food products.
 - ① Those with the history of being used in specific food products, such as spices, water-extraction teas, and alcohols.
 - ② Those that can be used after complete removal of toxic substances or others causing adverse reactions.
 - ③ Those for which limits for residual toxic substances or others causing adverse reactions have to be established.
- (5) Documents to be submitted to get approval of raw materials for use in foods
 - ① If it is intended to submit documents to get approval, the following decision tree may be useful

「Decision Tree To Determine the Suitability as Raw Materials for Use in Foods」



Code	Description
A	Raw materials with the history of being used in foods and without known toxic substances or others causing adverse effects
B	Raw materials with the history of being used in foods and with known toxic substances or others causing adverse effects, but for which limits for residual such substances have been established in foreign countries
C	Raw materials with the history of being used in foods and with known toxic substances or others causing adverse reactions, but from which such substances can be completely removed
D	Extracts with the history of being used in foods
E	Extracts with no history of being used in foods
F	Other raw materials
G	Those that cannot be used in foods
H	Those that may be used as food additives

① Source materials : animals or plants, or their parts before processing

② Extracts : obtained by the extraction of edible raw materials with use of solvents (water, alcohol, or carbon dioxide) or through physical treatment.

※ Simple extracts (crude extracts) : extracts from which specific substances are not removed or separated (including juice)

⑤ The following documents shall be submitted.

Documents	A, D	B, C	E	F
① General characteristics of raw materials	√	√	√	√
② References showing the use in foods	√	√		√
③ Information on toxic substances or others causing adverse reactions		√		
④ Toxicity study data			√	√

(A) General characteristics of raw materials

① Name of raw material

② Scientific name of source material, parts to be used

③ Data showing the characteristics of raw materials, such as composition, photos, and habitats

④ Intended use in foods

⑤ For extracts or other raw materials, information on the manufacture method (solvents, enzymes, microorganisms, and others)

(B) References showing the use in foods

① Data demonstrating that a raw material has been used in foods for more than 30 years

② For materials manufactured and marketed in foreign countries, data demonstrating that they have been distributed in more than 3 countries [manufacturers, sales records, marketing period, samples, inserts, labeling, or certificate of sale issued by the relevant country (stating that the material is marketed and consumed in the country)]

(C) Information on toxic substances or others causing adverse reactions

① General information on toxic substances or others causing adverse reactions, such as names, molecular structures, and other characteristics

② Data on toxicity or adverse reactions

③ Data on analytical methods of such toxic substances

④ If such toxic substances or others causing adverse reactions are completely removed, data demonstrating such removal.

⑤ If limits for toxic substances or others causing adverse reactions are established in foreign countries, the relevant country's regulation and reason for establishment of such limits, and data on contents in finished products.

(D) Toxicity study data

① Single dose toxicity study, repeated dose toxicity study (more than 3 months), and genotoxicity study performed by authorized organizations (GLP-compliant organizations)

※ Depending on the nature of the raw material, 6-month repeated dose toxicity study, immunogenicity study, carcinogenicity study, local toxicity study, and others may be required.

(6) Food raw materials that can be used as "raw materials"

- ① "Raw materials" mean those that can be used in foods without any limitations.
- ② The lists of "raw materials" are provided in Annex 1.

(7) Food raw materials that can be used as "raw materials for limited use"

- ① "Raw materials for limited use" mean those that can be used in foods in accordance with the specified conditions for use.
- ② Raw materials categorized as "raw materials for limited use" shall be used in compliance with the specified conditions for use. If such conditions are not provided, the following requirements shall be followed.
 - Ⓐ Animals, plants, and others categorized as "raw materials for limited use" shall be added to the mixing process at the percentage of less than 50% (except the water for mixing).
 - Ⓑ If raw materials for limited use are added, the total amount of such materials in the mixture shall not exceed 50% (except the water for mixing).
 - Ⓒ However, in the manufacture of teas, beverages, alcoholic products, or spices and if such products include only one plant-derived raw material categorized as one for limited use, the material may be used as "raw material".
 - Ⓓ The mixing ratio of "raw materials for limited use" shall be based on those before processing. For concentrates or extracts, the weights of raw materials before processing shall apply.
- ③ The lists of "raw materials for limited use" are provided in Annex 2.

(8) "Raw materials not usable in foods"

- ① "Raw materials not usable in foods" mean those that cannot be used in the manufacture, processing, or cooking of food products.
- ② The lists of "raw materials not usable in foods" are provided in Annex 3.

3. Manufacturing & Processing Standards

1) Machine/utensil and other facilities, which are utilized in food manufacturing and processing, shall be hygienically maintained and managed.

2) Water, which is utilized in food manufacturing and processing, shall be in conformity to water standard under the Management of Drinking Water Act.

3) Water for food shall be made by using the water treatment agents specified in the Management of Drinking Water Act or by treating the water through the precipitation, filtration [activated carbon, sands, ceramic, elvan, diatom, microfilter, ultra filter, reverse osmosis, or ion exchange resin], ozone

sterilization, ultraviolet sterilization, electrolysis, chlorine sanitation, or other methods appropriate for the intended use of the food product.

4)The proper precaution is demanded strongly to prevent contamination of foreign matter or pathogen under food manufacturing and processing.

5) Foods may be extracted with use of water, alcohol, a mixture of water and alcohol, or carbon dioxide. However, if individual specifications are established in the Food Additive Code, such specifications shall be followed.

6)Fish shall be stored below -18°C after the non-edible fragments other than the flesh of fish fully removed.

7)Thawing of refrigerated raw material shall be hygienically performed.

8)Veterinary drugs cannot be used in the manufacturing, processing, storage, and distribution of food.

9)If it is intended to recover the food containers and packaging materials and re-use them, they shall be cleaned with water meeting the standards specified in the Management of Drinking Water Act to remove any impurities. They shall be used only after it is verified that there are no impurities.

10) Processed food shall be as promptly and hygienically wrapped as possible to prevent contamination by microbes.

11) Acid value and peroxide value of oil used for frying shall be not more than 2.5 and 50, respectively.

12) Food shall not be manufactured in the form of capsule or tablet. However, this does not apply to confectionaries, edible salt, soy sauces/pastes, composite seasonings and processed sugar products is excluded.

13) The residual amount of media used in culture of mushroom fruit bodies shall be not more than 10% of dried culture material.

14) Aloe husk shall not be used in the manufacture of food products.

15) Any solvents used in the manufacture of food products containing chitosan shall not be left in the food products.

16) Ginseng or red ginseng-containing products

① Soluble ginseng and red ginseng components used in the manufacture of ginseng or red ginseng teas shall contain no less than 60% of solids. For water-insoluble precipitates, the ginseng tea shall have not more than 3% of solids and the red-ginseng tea shall have not more than 2%. Such components shall be manufactured to have their unique tastes.

② Any coloring agents shall not be used in the manufacture of the red-ginseng teas, liquid tea products containing red ginseng, or concentrated red ginseng products.

17) Any materials used to remove the moisture, odors, oxygen, or others from inside the food packaging for the purpose of improving the freshness shall be packaged in a material meeting the

standards and specifications for utensils, containers, and packaging materials. They shall be packaged to prevent the migration of their substances into the food products.

18) Containers and packaging materials for food products shall be made by manufacturers who completed reporting their business to manufacture containers and packaging materials. However, this provision shall not be applicable if a food manufacturer produces the containers and packaging materials to be used in its food products.

4. Main Raw Material of Foods

1)"Main material" means raw material which is used in distinguishing and specifying from other food in consideration of the main purpose and characteristics etc. of individual food.

2)Food, in which the standard in mixing raw material is designated in 'Article 5. Standards & Specifications for Each Food Product', shall follow its standard. However, in case the standard in mixing raw material is 100%, the content of food additives shall be removed and a product to contain the additives shall be suitable to the product standards of 'Article 5. Standards & Specifications for Each Food Product'.

3)Dried or concentrated food which can be regenerated by adding water, the composition & weight ratio (%) of regenerated condition is applied.

5. General Specifications of foods

1) Description

Unique color and flavor without strange taste and strange odor.

2) Foreign material

① Food shall not contain unhygienic material to be mixed with foreign material, which is not removed to required level in the treatment of raw material. However, foreign material such as other plant, the outer skin of raw plant or sand, which is not sufficiently removed in manufacturing & processing and remains, can be excluded within a range, in which the quantity of foreign material is a little and human health is not damaged.

② Iron filings as metallic foreign matter shall be detected in foods not more than 10.0 mg/kg when tested according to the method for metallic particles described in Article 10-7-1)-(5). In addition, any metallic particles of more than 2.0 mm in length shall not be detected.

3) Food additives

(1) Operation standard of food additive in food shall comply with Food Additive Code.

- (2) If a food additive that cannot be used in a food is derived from a raw material for which the food additive can be used, the restriction on the use of food additives may not be applied within the range of such deriving from the raw material.

4) Food poisoning bacteria

Food poisoning bacteria such as *Salmonella spp.*, *Staphylococcus aureus*, *Vibrio parahaemolyticus*, *Clostridium perfringens*, *Listeria monocytogenes*, and *Escherichia coli* O157:H7, *Campylobacter jejuni*, *Bacillus cereus*, *Yersinia enterocolitica* etc. shall not be detected in meat (raw material for processing is excluded) and processed food which is sterilized & pasteurized or can directly be digested without more processing or thermal treatment. And *Tuberculous bacillus*, *Anthraxnose bacteria* and *Brucella suis* shall not be detected in meat & meat foods. However, if there are quantitative limits for food poisoning bacteria in 'Article 5. Standards & Specifications for Each Food Product', the relevant food shall meet the quantitative limits. And other processed foods shall meet the following the limits of *Bacillus cereus*.

- (1) Soy sauce/paste (except meju), sauce, composite seasonings, salted food and boiled food : not more than 10,000 /g
(The sterilized products shall be negative)
- (2) Processed food taken as it is without further processing, heating, or cooling, among food products other than those listed in the above (1) and food products for which specifications are not established : not more than 1,000 /g (The sterilized products shall be negative)

5) Heavy Metal

- (1) Maximum heavy metal residue limits of marine fish & shellfish (with mollusca) (based on live thing)
- ① Total mercury : Not more than 0.5 mg/kg (except deep-sea fishes, tunas, and spearfishes)
 - ② Methyl mercury : Not more than 1.0 mg/kg (limited to deep-sea fishes, tunas, and spearfishes)
 - ③ Lead : Not more than 0.5 mg/kg
- (2) Maximum heavy metal residue limits of shellfish (with mollusca) (based on live thing)
- ① Total mercury : Not more than 0.5 mg/kg
 - ② Lead: Not more than 2.0 mg/kg
 - ③ Cadmium : Not more than 2.0 mg/kg
- (3) Maximum heavy metal residue limits (based on raw) of agricultural products
- ① Lead(mg/kg): Not more than 0.2 of rice (except for brown rice), 0.2 of corn, 0.2 of soybean, 0.2 of red-bean, 0.1 of sweet potato, 0.1 of potato, 0.3 of chinese cabbage, 0.3 of spinach, 0.1 of leek, 0.1 of radish
 - ② Cadmium(mg/kg): not more than 0.2 for rice (except for brown rice), 0.1 of corn, 0.1 of soybean, 0.1 of red-bean, 0.1 of sweet potato, 0.1 of potato, 0.2 of chinese cabbage, 0.2 of spinach, 0.05 of leek and 0.1 of radish

(4) Provisional heavy metal limits for dried fish, shellfish, and agricultural products applied.

- ① If water content is changed during drying process, the limits shall apply with consideration of water content.

6) Standard for irradiated foods

(1) Source and type of radiation are γ -ray of Co^{-60} .

(2) When radiation is required only for sprout inhibition, disinfestation and microbial control of food, irradiation of food shall meet the following standard.

① Absorbed dose of permitted food

Ⓐ Potato, onion, garlic : Not more than 0.15 KGy

Ⓑ Chestnut : Not more than 0.25 KGy

Ⓒ Fresh and dried mushroom: Not more than 1 KGy

Ⓓ Egg powder, cereals, legumes and their powder as ingredient of food products, Starch as ingredient of food products : Not more than 5 KGy

Ⓔ Dry Meat and the powder of fish & shellfish as ingredient of food product, soybean paste powder, red pepper paste powder, soy sauce powder, dried vegetables as ingredient of food products, yeast & enzyme food, algae food, Aloe powder, Ginseng(including red ginseng) food : not more than 7 KGy

Ⓕ Dried spice & its inferior article, composite seasoning products, sauces, leaching, powdered tea, sterile meals for 2nd pasteurization : 10 KGy

(3) Irradiated food shall not be reirradiated and food, which is manufactured processed from irradiated raw materials, shall not be reirradiated.

(4) Irradiated food shall be sold after filling into container or packaging.

7) Maximum Radioactivity Limits in Food

Nuclear type	Target food	Maximum limit(Bq/kg, l)
^{131}I	Milk & dairy product	150
^{131}I	Other product	300
$^{134}\text{Cs} + ^{137}\text{Cs}$	All product	370

8) Maximum Mycotoxin Limits in Food

(1) Aflatoxin B₁

Target food	Maximum limit
Grain, beans, peanut, nuts & their processed food (grinding, cutting etc.)	Not more than 10 $\mu\text{g}/\text{kg}$
soybean paste, red pepper paste and red pepper powder	Not more than 10 $\mu\text{g}/\text{kg}$

(2) Aflatoxin M₁

Target food	Standard

Raw milk & milks before manufacturing processing	Not more than 0.5 µg/kg
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(3) Patulin

Target food	Standard
Apple juice Apple juice concentrate(including concentrate to use as raw material and converted by concentration multiple)	Not more than 50 µg/kg

(3) Fumonisin

Target food	Standard
Corn	Not more than 4 mg/kg (as of total B ₁ and B ₂)
Corn processed food (grinding, cutting etc.) Corn powder	Not more than 2 mg/kg (as of total B ₁ and B ₂)

(3) Ochratoxin A

Target food	Standard
Wheat, barley & rye	Not more than 5 µg/kg
Coffee beans & roasted coffee	Not more than 5 µg/kg
Instant coffee	Not more than 10 µg/kg

9) Specification of shellfish poison

(1) Paralytic shellfish poisoning

Target food	Standard
Shellfish & their processed food	Not more than 80 µg/100g

(2) Diarrhetic shellfish poisoning (Total of okadaic acid & dinophysistoxin-1)

Target food	Standard
Bivalves	Not more than 0.16 µg/100g

10) Pesticide Maximum Residue Limits in foods

(1) If maximum residue limits in agricultural products are not established in "Standards and specifications for foods", the following requirements shall apply.

- ① The Codex standard shall apply.
- ② The lowest of the residue limits of pesticide in question specified for similar agricultural products shall apply to the agricultural products which the pesticides detected. (A similar agricultural products refers to a product that is classified within the same type of④ classification of agricultural products. In case of types of nuts and seeds, fruits and vegetables, the MRLs of the subordinate group shall be used)
- ③ The lowest of the pesticide residue limits in Annex 4. shall apply to the detected pesticide.

④ Classification of agricultural products

Agricultural products classification is divided from shape of agricultural products and residue specificity of pesticide.

Type	Group	Commodity
Cereal grains	-	Rice, Barley, Wheat, Buckwheat, Foxtail millet, Sorghum, Corn, Oats, Rye, Great millet, Job's tear, Common millet, Japanese-barnyard millet, Quinoa, Triticale etc
Potatoes	-	Potato, Sweet potato, Taro, Yam, Cassava(tapioca), Elephant food etc
Beans	-	Soybean, Mungbean, Pea, Kidney bean, Cowpea, Red bean, Broad bean, Pigeon pea, Lima bean, Cicer arietinum, Green bean, Black bean, Lentils etc
Nuts and Seeds	Nus	Chestnut, Walnut, Gingko nut, Pine nut, Peanut, Almond, Pecan, Cashew nut, hazel nut, macadamia, pistachio, acorn etc
	Seeds	Sesame, Cotten seed, Sunflower seed, Pumpkin seed, Perilla-seed, Black sesame, Olive, Evening primrose seed, Cotton seed, Rape seed, Palm tree, Safflower etc
Fruits	Pome fruits	Apple, Pear, Persimmon, Quince, Pomegranate, etc
	Citrus fruits	Mandarin, Orange, Grapefruit, Lemon, ¹⁾ Korean lemon, Lime, Oval Kunquat, Hardy orange, Citron, etc
	Stone fruits	Peach, Jujube, Apricot, Plum, Korean Plum, Cherry, Prynus persica, Korean cherry, etc
	Berries and other small fruits	Grape, Strawberry, Fig, Mulberry, Cowberry, Currant, Berry, Chinese matrimony vine, <i>Schisandra Chinensis Baillon</i> , wild grapes, <i>Rubus coreanus</i> etc
	Assorted tropical and sub-tropical fruits	Banana, Pineapple, Kiwifruit, Avocado, Papaya, Date palm, Mango, Guava, coconut etc
Vegetables	Leafy vegetables	Korean cabbage, Cabbage, Lettuce(leaf), Lettuce(head), Spinach, Perilla leaves, Crown daisy, Marsh mallow, Chard, ²⁾ Butterbur, Radish leaves, Chwinamul, Papper leaves, Chamnamul, Kale, Broccoli, Chinese vegetable, Mustard leaf, Shepherd's purse, Chicory(leaves), Endive, Waterdrop wort, Pumpkin young leaves, ³⁾ Shinsuncho, Korean wasabi(leaves), Amaranth, Sowthistle, Burdock Leaves, New green, Dachungchae, Gyeojachae, Danggi leaf etc
	Stalk and stem vegetables	Welsh onion, Leek, Waterdrop wort, Sweet potato stalk, Taro stem, ⁴⁾ Bracken, Asparagus, Celery, bamboo Shoot, Kohlrabi, Kuansh, Bud of aralia, Wild garlic, Royal fern, Green garlic, Sedum etc
	Root and tuber vegetable	Radish(root), Onion, Garlic, Carrot, Ginger, Lotus root, Burdock, Balloon flower, ⁵⁾ Bonnet bellflower, Beat, Turnip, Wild parsnip, Yacon, Korean wasabi(root), Chicory(root), Ginseng etc
	Fruiting vegetables	Cucumber, Squash, Tomato, Green & Red pepper(Fresh), Sweet pepper, Eggplant, Korean melon, Watermelon, Melon, Okra, Unripe bean etc
Mushrooms	-	Oyster mushroom, Pine mushroom, Oak mushroom, Mushroom, Edible mushroom, Winter mushroom, Juda's ear, Ganoderm aliucidum karst, New matsutake fungus etc
Tea leaves	-	Tea
Hops	-	Hop
Other plants	-	Mustard, Pepper, Curry, Pimenta dioica, Coffee bean, Cacao bean

(2) Maximum residue limits for pesticides in agricultural products

Maximum residue limits for pesticides in agricultural products are as follows in Annex 4.

(3) Maximum residue limits for pesticides in ginseng

Maximum residue limits for pesticides in ginseng are as follows in Annex 5.

(4) Maximum residue limits for pesticides in soybean and mung-bean sprouts

Carbendazime, Thiabendazole, Thiram, Captan shall not be detected

(5) Provisional limits for residual agricultural chemicals in processed foods applied

If any agricultural chemicals are detected in processed foods for which limits for residual agricultural chemicals are not established in Korea, the following standards shall apply.

- ① Limits specified in CODEX shall apply first.
- ② Such residuals may be accepted if they are detected in the range of acceptable limits for food raw materials.
In other words, the amount of raw materials will determine the limits for raw agricultural and livestock materials and, if the water content is changed during drying or other processes, the limits will be determined under consideration of water content.

(6) Applicable scope of limits for residual agricultural chemicals in livestock products

- ① Mammalian meat : Muscular tissues of animal body (or its part), including the fat in muscles and subcutaneous fat, obtained from cattle, pig, sheep, goat, rabbit, horse, deer, or others (except those from marine animals)
- ② Mammalian fat : Unprocessed fats from adipose tissues of cattle, pig, sheep, goat, rabbit, horse, deer, or others. The milk fat is not included in this definition.
- ③ Mammalian byproducts : Edible tissues and organs, except the meat and fats, from cattle, pig, sheep, horse, goat, rabbit, deer, or others, such as liver, lung, heart, stomach, pancreas, kidney, head, tail, foot, skin, blood, bone (bone containing tendon and tissues).
- ④ Poultry meat : Muscular tissues, including attached fat and skin, from poultry, such as rooster, pheasant, duck, goose, turkey, quail, or others.
- ⑤ Poultry fat : Unprocessed fats from adipose tissues of poultry, such as rooster, pheasant, duck, goose, turkey, quail, or others.
- ⑥ Poultry byproducts : Edible tissues and organs, except the meat and fats, from poultry, such as rooster, pheasant, duck, goose, turkey, quail, or others. such as liver, heart, gizzard, skin, foot, or others.
- ⑦ Milk : Crude milk from mammals, such as sheep, goat, or others.
- ⑧ Dairy products : Milk, low-fat milk, lactose-hydrolyzed milk, processed milk, goat milk, fermented milk, butter milk, concentrated milk, milk cream, butter, natural cheese, processed cheese, powdered milk, whey products, lactose, milk protein hydrolyzed foods, or others manufactured or processed with use of crude milk or other dairy products as main raw materials.
- ⑨ Eggs : Eggs from poultry, such as roosters, ducks, quails, or others, from which shell is removed.

(7) Limits for residual agricultural chemicals in livestock products

Refer to Annex 6.

11) Limits for Residual Veterinary Drugs

(1) Application of limits for residual veterinary drugs

- ① Any veterinary drugs (including their metabolites) of which manufacture or import is not authorized due to safety or efficacy problems shall not be detected. Some such veterinary drugs are summarized in the

following table and others not included in this table may be also subjected to this provision in accordance with the applicable laws and regulations.

No.	Forbidden Veterinary drugs in foods ^{*1}
1	Nitrofurans and its derivatives (Furazolidone, Furaladone, Nitrofurazone, Nitrofurantoin, Nitrovin, etc.)
2	Chloramphenicol
3	Malachite green and its derivatives
4	Diethylstilbestrol, DES
5	Dimetridazole
6	Clenbuterol
7	Vancomycin
8	Chlorpromazine
9	Thiouracil
10	Colchicine
11	Pyrimethamine
12	Medroxyprogesterone acetate, MPA

- *1. This applies to livestock products, fishery products of animal origin, and their processed products only.
 *2. Semicarbazide (SEM), the metabolite of nitrofurazone, only applies to non-heated livestock products and fishery products of animal origin (including the simple cut).

- ② For byproducts from animals for food (including the internal organs, bones, head, tail, foot, skin, blood, or other edible parts) for which limits for residual veterinary drugs are not specified in the Food Code, the limits applicable to "meat (muscle)" for livestock products or "fish" for marine products shall be applied.
- ③ For food products manufactured or processed using the raw materials for which limits for residual substances are established, such residuals may be accepted if they are detected in the range of acceptable limits for those raw materials. In other words, the limits for residues in individual raw materials will be based on the amount of raw materials and, if the water content is changed during drying or other processes, the limits will be determined under consideration of water content.
- ④ If national or CAC standards do not exist for individual animals, the limit for the part in question shall be the lowest MRLs of similar animal species. As an example, for ruminants and horses in mammals, for which standards are not set, and for non-ruminants and poultry whose tolerances are not established, the lowest MRLs set for the part in question of ruminants, non-ruminants or poultry whose standards are established shall be applicable. In case of royal jelly and propolis, standards for honey shall apply.

⑤ Among veterinary drugs for which residual limits are not set in 「Standards and Specifications for Foods」 and CAC, antibiotics and synthetic antibiotic substances in livestock and fishery products (including milk and eggs), and honey (including royal jelly and propolis) shall be limited to 0.03 mg/kg.

(2) Limits for residual veterinary drugs in foods are summarized in Annex 7.

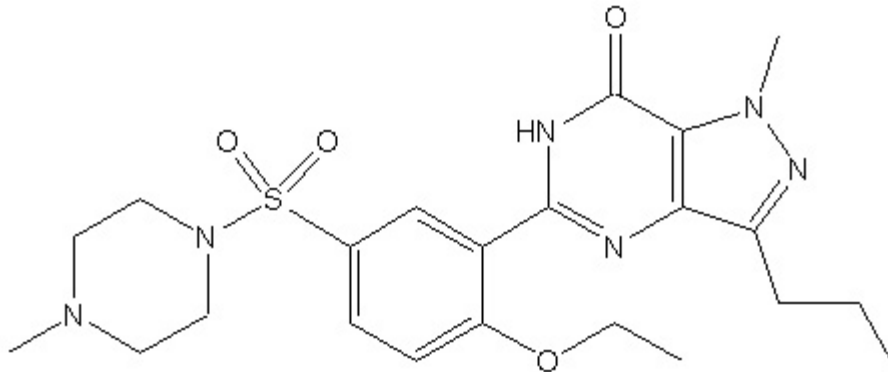
12) Specification of Other Hazardous Material

(1) Synthetic substances whose chemical structure are fundamentally similar to those of the following drugs for impotence, diabetes or obesity shall not be detected. (Except for those for which standards and specifications are established.)

① Anti-impotence drug

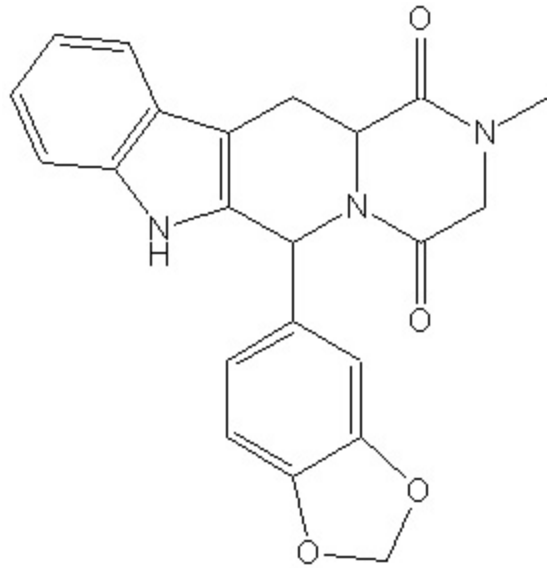
a. Sildenafil

(C₂₂H₃₀N₆O₄S, 474)



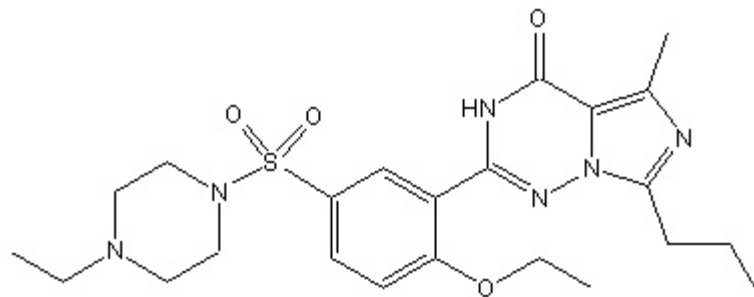
b. Tadalafil

(C₂₂H₁₉N₃O₄, 389)



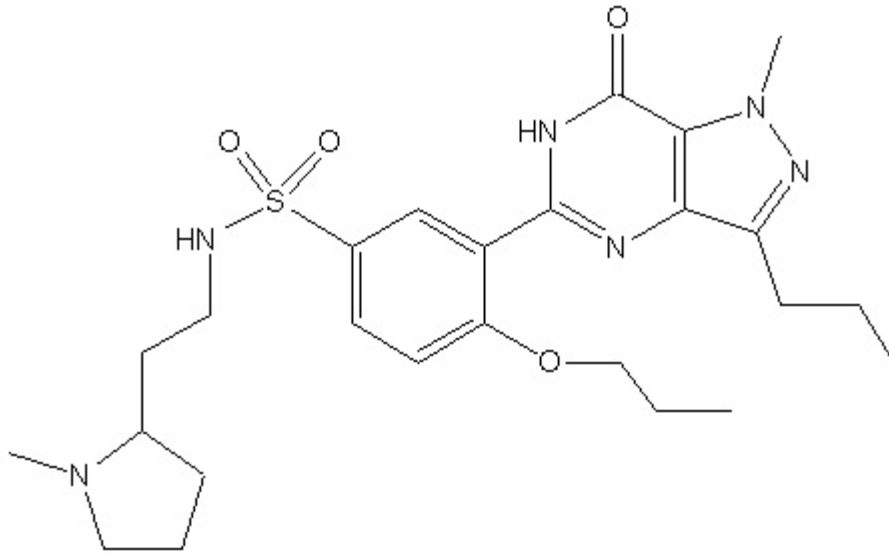
c. Vardenafil

(C₂₃H₃₂N₆O₄S, 488)



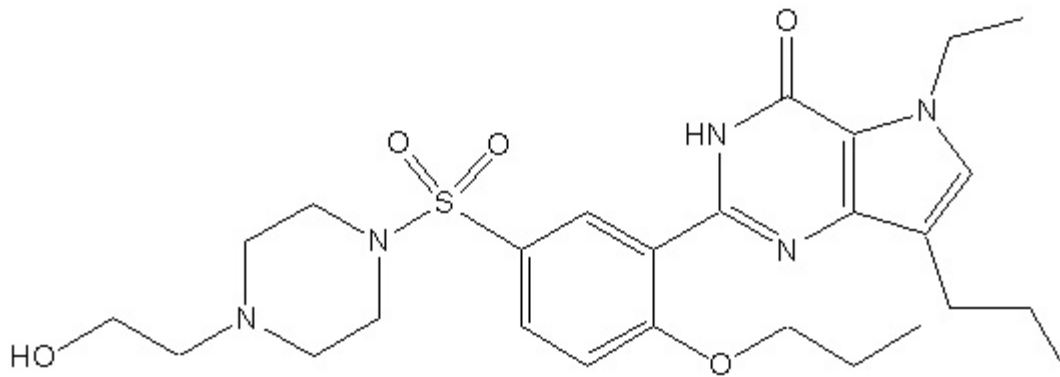
d. Udenafil

(C₂₅H₃₆N₆O₄S, 516)



e. Mirodenafil

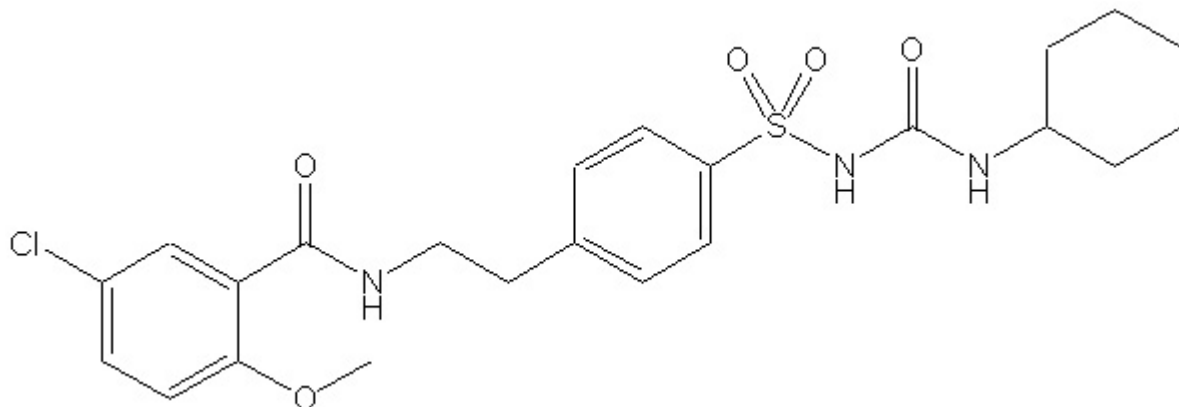
($C_{26}H_{37}N_5O_5S$, 531)



② Hyperglycemia drug

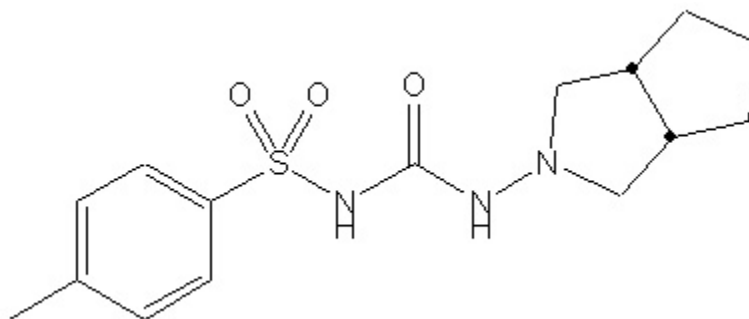
a. Glibenclamide

($C_{23}H_{28}ClN_5O_5S$, 493)



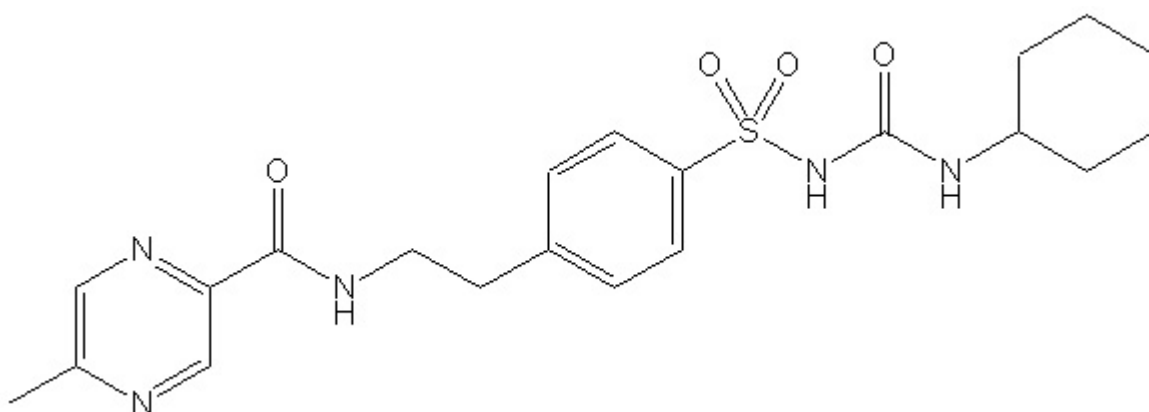
b. Gliclazide

(C₁₅H₂₁N₃O₃S, 323)



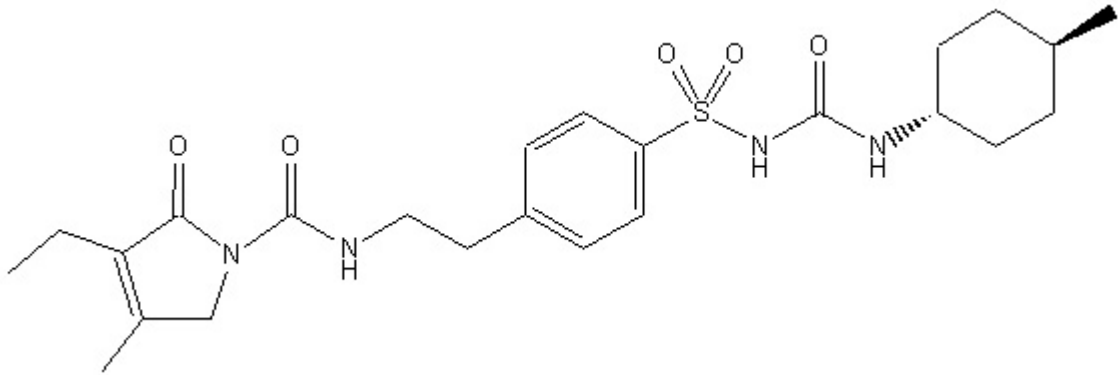
c. Glipizide

(C₂₁H₂₇N₅O₄S, 445)



d. Glimepiride

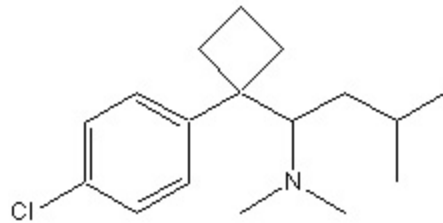
(C₂₄H₃₄N₄O₅S, 490)



③ Anti-obesity drug

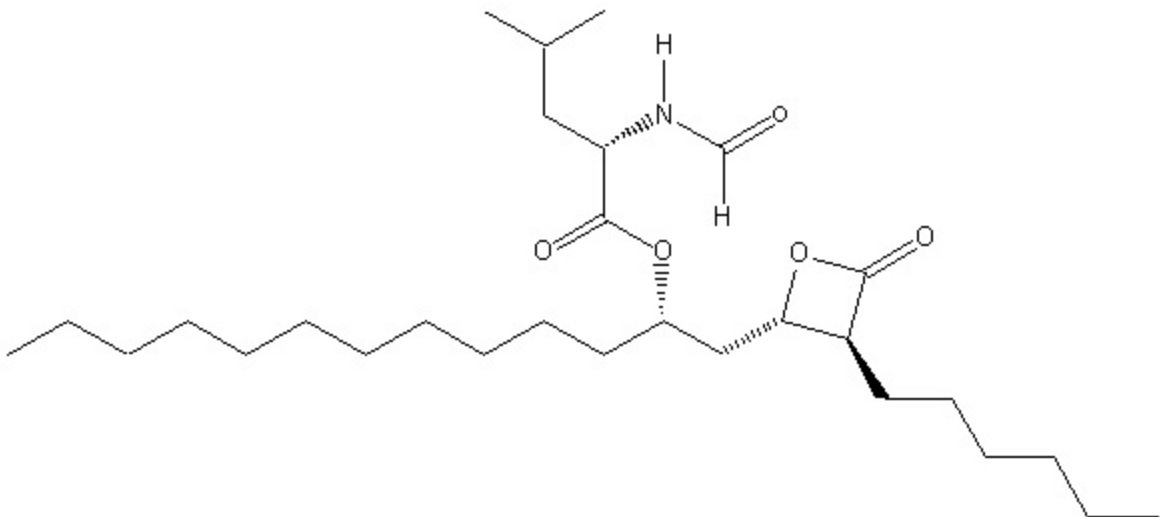
a. Sibutramine

($C_{17}H_{26}ClN$, 279)



b. Orlistat

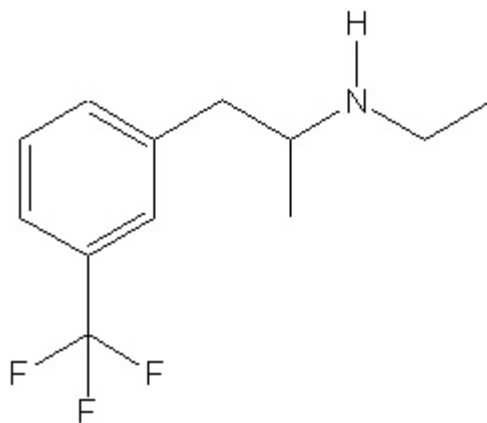
($C_{29}H_{53}NO_5$, 495)



④ Others

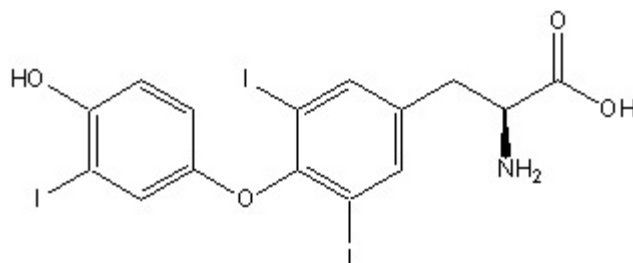
a. Fenfluramine

(C₁₂H₁₆F₃N, 231)



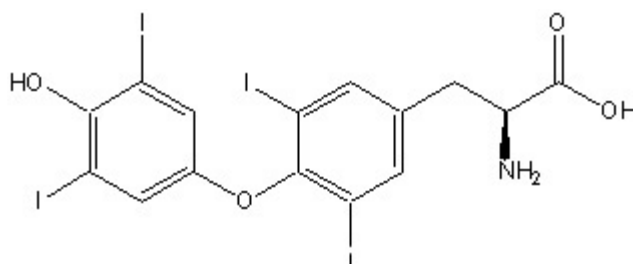
b. Liothyronine

(C₁₅H₁₂I₃NO₄, 651)



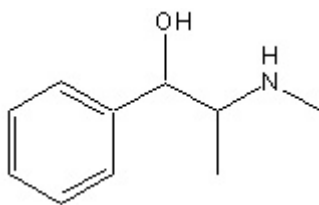
c. Levothyroxine

(C₁₅H₁₁I₄NO₄, 777)



d. Ephedrine

(C₁₀H₁₅NO, 165)



(2) Analogues of anti-impotence drug

- ① Homosildenafil : Not detected
- ② Hongdenafil : Not detected
- ③ Hydroxy homosildenafil : Not detected
- ④ Amino tadalafil : Not detected
- ⑤ Pseudo-varidenafil : Not detected
- ⑥ Hydroxy hongdenafil : Not detected
- ⑦ Dimethylsildenafil : Not detected
- ⑧ Xanthoanthrafil : Not detected
- ⑨ Hydroxyvardenafil : Not detected
- ⑩ Norneosildenafil : Not detected
- ⑪ Demethylhongdenafil : Not detected
- ⑫ Piperidinohongdenafil : Not detected
- ⑬ Carbodenafil : Not detected
- ⑭ Thiosildenafil : Not detected
- ⑮ Dimethylthiosildenafil : Not detected
- (16) Acetylvaridenafil : Not detected
- (17) Benzylsildenafil : Not detected
- (18) Norneovardenafil : Not detected
- (19) Oxohongdenafil : Not detected
- (3) 3-MCPD(3-Monochloropropane-1,2-diol) Specifications

(Unit: mg/kg)

Foods	Specifications
Acid hydrolyzed soy sauce, mixed soy sauce (limited to those manufactured by mixing and processing of acid hydrolyzed soy sauce or its bulk)	Not more than 0.3

HVP: Hydrolyzed vegetable protein	Not more than 1.0 (as of dried HVP)
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* HVP: obtained by hydrolyzing vegetable proteins from pulses, corns, or wheats into amino acids and others through chemical processing (except enzyme hydrolysis).

(4) Benzo(a)pyrene

① Edible oil : Not more than 2.0 $\mu\text{g}/\text{kg}$

② Sukjihwang & gunjihwang : Not more than 5.0 $\mu\text{g}/\text{kg}$

(5) Analogues of anti-obesity drug

① Desmethyisibutramine : Not detected.

13) For food products manufactured and marketed for infants or neonates under 6 months of age, *Enterobacter sakazakii*, coliform group, and Tar color shall not be detected and the number of bacteria shall be not more than 20,000 /g (not more than 100/g for liquid products).

14) Limits for Dioxin in Meat

(1) Beef : Not more than 4.0 pg TEQ/g fat

(2) Pork : Not more than 2.0 pg TEQ/g fat

(3) Chicken : Not more than 3.0 pg TEQ/g fat

15) Limits for Norovirus at Restaurant

For water used in cooking, manufacturing, or processing of food, or drinking, or cleaning of food materials or tableware at restaurant, food service centers, or food manufacturers or processors, norovirus shall not be detected. However, the city water to be used as drinking water at the restaurant, food service centers or others shall be exempted.

6.Preservation & Distribution Standards

1) All foods are hygienically dealt to sell, and their storage & store shall not be located in an unclean place.

Rat & insect-proof management shall be thoroughly performed.

2) Food handling place shall be protected from rain, snow, and chemical product, agricultural chemicals and poison, which are harmful to human, shall not be kept at the same place.

3) It is cautious that foreign material is not mixed, and food shall be separated and kept from other food & food additive, which may affect its taste.

- 4) Food shall be kept and distributed at a cool place and some foods, of which storage cannot be continued for 7 days at normal temperature, shall be kept and distributed at the refrigeration or freezing facility as long as possible.
- 5) When soybean, which is a raw material for bean-curd, is kept distributed, it is managed that damage due to each harmful material, adulteration and foreign material (including mold) is not happened. Soybean is kept and distributed so as not to be exposed in direct rays of light, rain and so on.
- 6) Lunch box is supplied as soon as possible and shall be transported & distributed in a temperature-controlled facility in order to control chilling, warming, room temperature and constant temperature. Chilling can be maintained at no more than 10°C and warming at no less than 60°C.
- 7) Some foods such as processed fish product, chilled noodle, sterilized soybean milk, sterilized kimchi, sikhae (fermented fish with grains) & seasoned jeotkal (salted, fermented seafoods), fermented beverage, processed bean-curd and fried food and are kept at no more than 10°C. Fresh ready-to-eat food and smoked salmon are kept at no more than 15°C. However, some processed fish product, which is sterilized, may be excluded. Bean curd, whole bean curd, and paste products shall be treated with water meeting the standards for drinking water and then, stored.
- 8) After frozen food is thawed, it shall not be distributed as room temperature food or chilled food, and the room temperature food or chilled food shall not be distributed as frozen food.
- 9) Chilled food shall not be also distributed at room temperature (except fruit/vegetable)
- 10) Thawed food shall not be again frozen.
- 11) Transport of frozen or cold-storage products shall be performed with use of a vehicle able to maintain the specified temperature or in the equivalent or better manner. For long-distance transport of bean curd, whole bean curd, or paste products for more than 4 hours, a cold-storage vehicle shall be used to maintain the quality. For processed bean curd products, a cold-storage vehicle shall be used to maintain the quality.
- 12) It is cautious that moisture absorption shall not happen to food, which may absorb moisture.
- 13) It is cautious that container/packaging shall not be damaged during transportation or packaging of product and not severely impacted. Tube product shall be kept without rust on the outside.
- 14) Other print shall not be affixed to the labeling part of manufacturing date and expiration date.
- 15) "Expiration date" is calculated from the completion of packaging (however, the completion of final step for food, which is passed through other steps after packaging), and the expiration date of capsule product from the completion of filling and formation. When various products with different expiration dates are contained in the same package such as gift set, the shortest expiration date shall be regarded as the entire expiration date. However, the expiration date of division-selling product is calculated from the packaging time of raw material for division-sale and the expiration date of product, in which the

preservation of raw material is not changed and product is simply treated, is calculated from the packaging time of raw material.

- 16) After product manufacturer/importer considers both product characteristics, such as packaging material, preservation conditions, manufacturing method and the mixing ratio of raw material and so on, and other distribution conditions like refrigeration or freezing storage and so on, the expiration date of product shall be set as to prevent damage and to assure quality.
- 17) If it is intended to use a vessel to import, store, hold, or transport the concentrated fruit juice or others, the storage tank (below -5°C), in-house storage tank (below 0°C), and tank truck for transport (below 0°C) shall maintain the specified temperature and the transfer line shall be cleaned. Materials and/or cleaning agents for storage, holding, or transport of food products or cleaning of transfer lines shall meet the standards and specifications for food additives, utensils, containers, or packaging materials.
- 18) Fish frozen in saline to be used in the manufacture of canned food may be transported at below -9°C . Sanitary transport containers and covers shall be used during transport and the temperature of below -9°C shall be maintained.