

"Investigation of Commodity Food Standards and Analytical Methods in Asia"

Reported by : Hiroaki Hamano, International Life Sciences Institute
(ILSI Japan)

Investigation : Keiichi Abe (Cerebos Pacific Ltd.)

Collaborator : Hiromi Ohta (Suntory Wellness Limited)
Yoko Ogiwara (Ajinomoto Co., INC.)
Kiyohisa Kaneko (Coca-Cola (Japan) Company, Limited)
Masanori Koumura (Ajinomoto Co., INC. ASEAN Regional HQs)
Yukio Suzuki (Schiff's Japan)
Fumiko Sekiya (Takasago International Corporation)
Tomoko Takahashi (Nestle Japan Ltd.)
Koji Furuse (Unilever Japan Beverage)
Shuji Iwata (ILSI Japan)
Kazuo Sueki (ILSI Japan)
ILSI Korea
ILSI Focal Point in China
ILSI Southeast Asia Region

1. Purpose of the Investigation

In order to strengthen management practice and international competitiveness of Japanese food industry that is facing quantitative saturation and maturity in domestic market, it is necessary to address developing business in East Asian regions where attractive market is forming due to increasing population and dynamically growing economy.

In the past, Japanese food industry has been reluctant to develop new business in East Asia due to lack of information and understanding on food standards and methods of analysis for pesticide residues in the countries. The information including consistency with international standards such as Codex Standards should be compiled on database. Providing these information enable Japanese food industry to start and promote new business or facilitate smooth business in East Asian regions.

This investigation aimed to encourage Japanese food industry to enter to East Asian market and to enable to start new business, by using results of the investigation released in a workshop, training courses and/or individual consulting sessions held in Japan or in such East Asian countries.

2. Outline of the Investigation

In order to expand distribution of foods and food materials in East Asian regions according to MAFF (Ministry of Agriculture, Forestry and Fisheries)'s "East Asian Food Industry Revitalization Strategy", standards and methods of analysis for foods and food materials, and pesticide residues are required to be standardized or harmonized among East Asian regions. In this proposed project, we investigated standards for major food categories, pesticide residues and methods of analysis, then extracted their differences and issues to be addressed for their future integration or harmonization based on the results. The investigation was conducted with the help from experts in the target countries. Sharing the results in a workshop helps better understanding of future tasks.

2.1 Countries covered by the Investigation :

In the light of marketability (including population) , business activities of Japanese companies possessing overseas subsidiaries and market potential in East Asian countries, we selected 8 countries; the Republic of Korea, the People's Republic of China, Malaysia, Singapore, the Philippines, Indonesia, Thailand, and Vietnam. For Indonesia, Thailand, and Vietnam, however, the investigation could not be fully conducted because it took much time to collect information in English. If possible, these countries are to be continuously investigated in next fiscal year. Therefore, the countries actually covered by this investigation were five countries; Korea, China, Malaysia, Singapore and the Philippines.

2.2 Food(s) covered by the Investigation :

When designing the investigation program, the first pilot study covered instant noodles, carbonated drinks and prepared frozen foods which were considered to be relatively common in the region. For food additives, the information was collected just for future program.

2.3 Methods of the Investigation :

This project was conducted by International Life Sciences Institute (ILSI Japan) with cooperation of ILSI's international network, namely ILSI Korea, ILSI Focal Point in China and ILSI Southeast Asia Region (ASEAN countries). Practically, the Investigation was conducted under the following procedures:

- (1) ILSI Japan designed the investigation program and prepared investigation forms to describe standards for the foods covered by the investigation.
- (2) ILSI Japan sent the investigation program and forms to ILSI branch offices in target countries. The investigation forms might be modified according to conditions in the target country. The results were filled in the investigation forms.

(3) ILSI Japan compiled and analyzed the data.

(4) ILSI Japan convened a workshop with persons in charge of the investigation forms in the target countries to share the results.

2.4 Project team :

ILSI Japan set up the project team within its "International Cooperation Committee", a body of ILSI Japan. The team consisted of members representing each food areas including noodle products, beverages, frozen foods and food additives. The team designed the program and proposed items of standards for the selected foods. These items were adjusted within cooperating ILSI branch offices (Korea, China and Southeast Asia) to be finally determined.

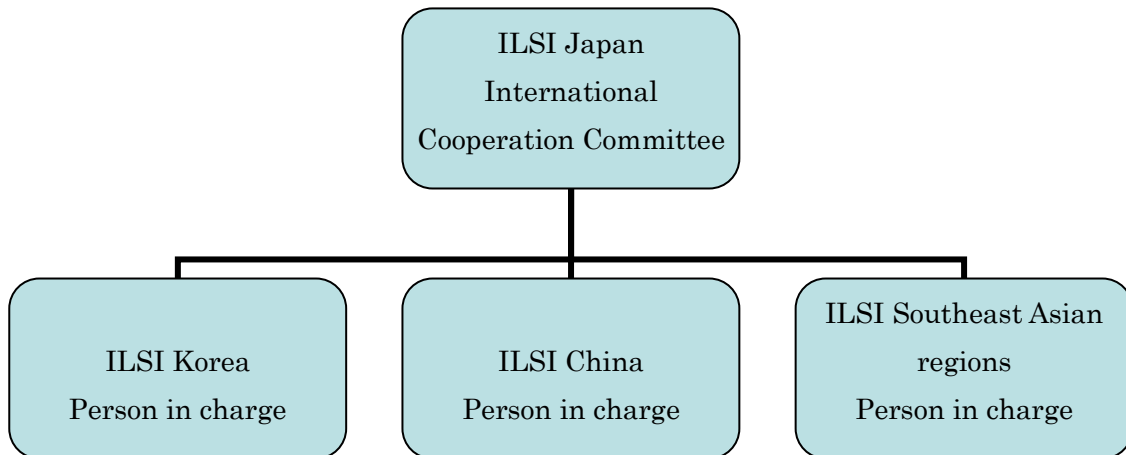
The project team conducted the investigation with the help of ILSI international network, especially with the following ILSI branch offices.

ILSI Japan branch: Japan

ILSI Korea branch: Korea

ILSI China branch: China (not including Hong Kong and Taiwan)

ILSI Southeast Asian regions branches: Malaysia, Singapore, the Philippines



2.5 Schedule of the Investigation :

This proposed project was conducted according to the following schedule.

Preliminary investigation and program design : June - August, 2009

Filling in the investigation forms : September - December. 2009

Collection and analyzing the data and extraction of future tasks: January-February, 2010

Workshop : March, 2010

Preparation of the report : March, 2010

Duration of the survey program : 10 months

3. The Investigation Results for Each Country

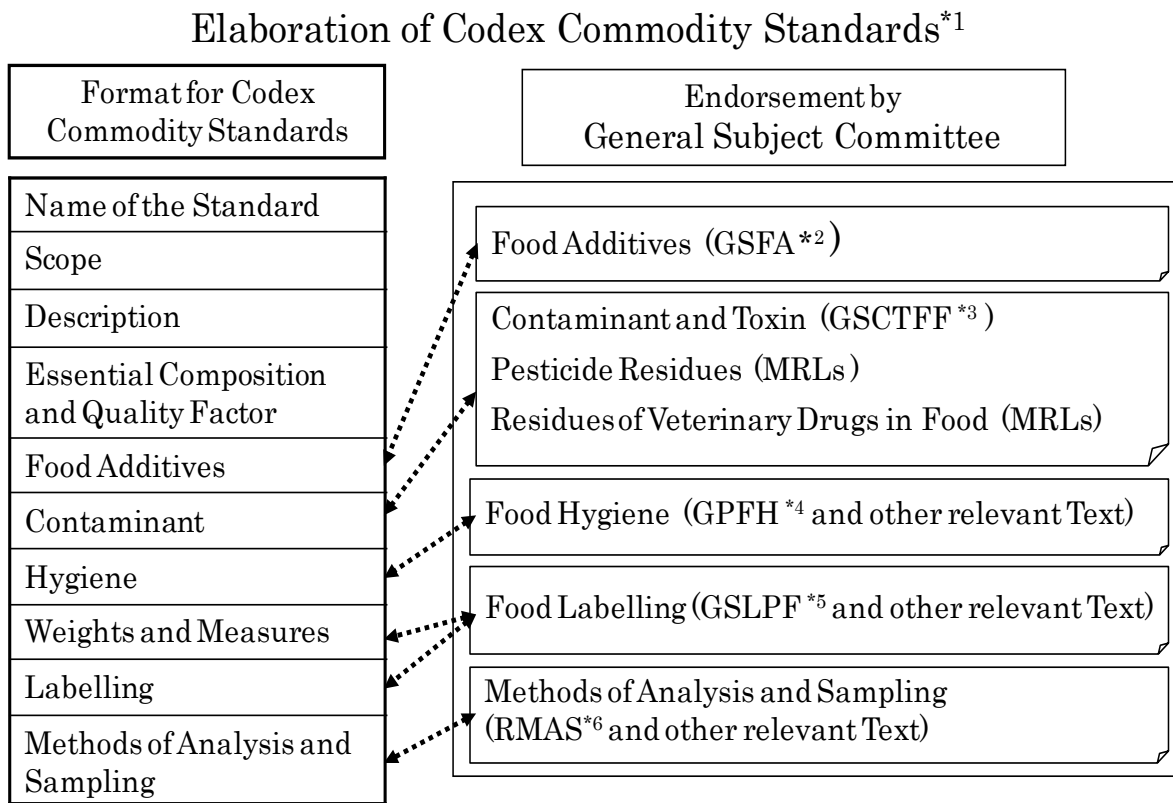
3.1 Commodity Standards developed by Codex Alimentarius Commission

For definition contents of "Food Standards", Commodity Standards developed by Codex Alimentarius Commission¹, which could be commonly accepted by member countries, were used in this investigation as standard.

3.1.1 Elaboration of Codex Commodity Standards

Figure 3.1-1 shows relationship between Commodity Standards and General Standards in Codex.

Figure 3.1-1



*1 Procedural Manual : Section III Elaboration of Codex Standards and Related Text

*2 Codex Stan 192-1955 General Standard for Food Additives

*3 Codex Stan 193-1995 General Standard for Contaminants and Toxins in Foods and Feeds

*4 CAC/RCP1-1969 General Principles of Food Hygiene

*5 Codex Stan 1-1985 General Standards for the Labelling of Prepackaged Foods

*6 Recommended Methods of Analysis and Sampling

¹ Codex Alimentarius Commission is an intergovernmental body established in 1962 by FAO (Food and Agriculture Organization of the United Nations) and WHO (World Health Organization) to implement the joint FAO/WHO Food Standards Programme. Its purpose is protecting the health of consumers and ensuring fair practices in the food trade through development of international food standards. Food standards developed by Codex Alimentarius Commission are intended to harmonize food standards worldwide under the multilateral trade agreement. http://www.codexalimentarius.net/web/index_en.jsp

Codex Alimentarius Commission has two types of functionally classified committees; Commodity Committees which deal with Commodity Standards, and General Subject Committees which deal with general subjects horizontally applied to overall foods. Standards developed by the Commodity Committee should be reviewed for overall foods and be approved by General Subject Committees.

For the format for commodity standards, requirements for description of items consisting standards, relations to General Subject Committees, method of elaboration of Commodity Standards is defined in detail in Codex Procedural Manual².

3.1.2 Codex Commodity Standards

As of July 2009, Codex Alimentarius Commission defined commodity standards for 200 food items presented in Table 3.1-2.

Table 3.1-2 is relatively inconvenient to overview the status of each standard against overall standards since standard numbers in the table were assigned generally according to the year of issued in the original version. On the other hand, ANNEX B in General Standards for Food Additives³ (GSFA) presents Food Category System (FCS) which is used to develop standards for use of food additives and describes individual category items. ANNEX C provides cross-reference list between the FCS and developed commodity food standards. These are more useful to overview the overall standards.

Table 3.1-2 List of Codex Commodity Standard

Stan. No.	Title	Year of adoption
1	General Standard for the Labelling of Prepackaged Foods	1985
3	Standard for Canned Salmon	1981
12	Standard for Honey	1981
13	Standard for Preserved Tomatoes	1981
17	Standard for Canned Applesauce	1981
19	Standard for Edible Fats and Oils not Covered by Individual Standards	1981
33	Standard for Olive Oils and Olive Pomace Oils	1981
36	Standard for Quick Frozen Finfish, Eviscerated or Uneviscerated	1981

37	Standard for Canned Shrimps or Prawns	1981
38	Standard for Edible Fungi and Fungus Products	1981
39	Standard for Dried Edible Fungi	1981
40R	Standard for Fresh Fungus "Chanterelle"	1981
41	Standard for Quick Frozen Peas	1981
42	Standard for Canned Pineapple	1981
52	Standard for Quick Frozen Strawberries	1981
53	Standard for Special Dietary Foods with Low-Sodium Content	1981
55	Standard for Canned Mushrooms	1981

²ftp://ftp.fao.org/codex/Publications/ProcManuals/Manual_19e.pdf

³http://www.codexalimentarius.net/gsaonline/CXS_192e.pdf

57	Standard for Processed Tomato Concentrates	1981
60	Standard for Canned Raspberries	1981
61	Standard for Canned Pears	1985
62	Standard for Canned Strawberries	1981
66	Standard for Table Olives	1981
67	Standard for Raisins	1981
69	Standard for Quick Frozen Raspberries	1981
70	Standard for Canned Tuna and Bonito	1981
72	Standard for Infant Formula and Formulas for Special Medical Purposes Intended for Infants	1981
73	Standard for Canned Baby Foods	1981
74	Standard for Processed Cereal-Based Foods for Infants and Young Children	1981
75	Standard for Quick Frozen Peaches	1981
76	Standard for Quick Frozen Bilberries	1981
77	Standard for Quick Frozen Spinach	1981
78	Standard for Canned Fruit Cocktail	1981
86	Standard for Cocoa Butter	1981
87	Standard for Chocolate	1981
88	Standard for Corned Beef	1981
89	Standard for Luncheon Meat	1981
90	Standard for Canned Crab Meat	1981
92	Standard for Quick Frozen Shrimps or Prawns	1981
94	Standard for Sardines and Sardine-Type Products	1981
95	Standard for Quick Frozen Lobsters	1981
96	Standard for Cooked Cured Ham	1981
97	Standard for Cooked Cured Pork Shoulder	1981
98	Standard for Cooked Cured Chopped Meat	1981
99	Standard for Canned Tropical Fruit Salad	1981
103	Standard for Quick Frozen Blueberries	1981
104	Standard for Quick Frozen Leek	1981

105	Standard for Cocoa powders (cocoas) and dry mixtures of cocoa and sugars	1981
106	General Standard for Irradiated Foods	1983
107	General Standard for the Labelling of Food Additives when sold as such	1981
108	Standard for Natural Mineral Waters	1981
110	Standard for Quick Frozen Broccoli	1981
111	Standard for Quick Frozen Cauliflower	1981
112	Standard for Quick Frozen Brussels Sprouts	1981
113	Standard for Quick Frozen Green and Wax Beans	1981
114	Standard for Quick Frozen French Fried Potatoes	1981
115	Standard for Pickled Cucumbers	1981
117	Standard for Bouillons and Consommés	1981
118	Standard for Gluten-Free Foods	1981
119	Standard for Canned Finfish	1981
130	Standard for Dried Apricots	1981
131	Standard for Unshelled Pistachio Nuts	1981
132	Standard for Quick Frozen Whole Kernel Corn	1981
133	Standard for Quick Frozen Corn-on-the-Cob	1981
140	Standard for Quick Frozen Carrots	1983
141	Standard for Cocoa (Cacao) Mass (Cocoa/Chocolate Liqueur) and Cocoa Cake	1983
143	Standard for Dates	1985
145	Standard for Canned Chestnuts and Chestnut Purée	1985
146	Standard for Labelling of and Claims for Prepackaged Foods for Special Dietary Use	1985
150	Standard for Food Grade Salt	1985
151	Standard for Gari	1985
152	Standard for Wheat Flour	1985
153	Standard for Maize (Corn)	1985
154	Standard for Whole Maize (Corn) Meal	1985
155	Standard for Degermed Maize (Corn) Meal and Maize (Corn) Grits	1985
156	Standard for Follow-up formula	1987
159	Standard for Canned Mangoes	1987

160	Standard for Mango Chutney	1987
163	Standard for Wheat Protein Products	1987
165	Standard for Quick Frozen Blocks of Fish Fillets, Minced Fish Flesh and Mixtures of Fillets and Minced Fish Flesh	1989
166	Standard for Quick Frozen Fish Sticks (Fish Fingers), Fish Portions and Fish Fillets - Breaded or in Batter	1989
167	Standard for Salted Fish and Dried Salted Fish of the Gadidae Family of Fishes	1989
169	Standard for Whole and Decorticated Pearl Millet Grains	1989
170	Standard for Pearl Millet Flour	1989
171	Standard for Certain Pulses	1989
172	Standard for Sorghum Grains	1989
173	Standard for Sorghum Flour	1989
174	General Standard for Vegetable Protein Products	1989
175	Standard for Soy Protein Products	1989
176	Standard for Edible Cassava Flour	1989
177	Standard for Grated Desiccated Coconut	1991
178	Standard for Durum Wheat Semolina and Durum Wheat Flour	1991
180	Standard for Labelling of and Claims for Foods for Special Medical Purposes	1991
181	Standard for Formula Foods for Use in Weight Control Diets	1991
182	Standard for Pineapple	1993
183	Standard for Papaya	1993
184	Standard for Mangoes	1993
185	Standard for Nopal	1993
186	Standard for Prickly Pear	1993
187	Standard for Carambola	1993
188	Standard for Baby Corn	1993
189	Standard for Dried Shark Fins	1993
190	General Standard for Quick Frozen Fish Fillets	1995
191	Standard for Quick Frozen Raw Squid	1995
192	General Standard for Food Additives	1995
193	General Standard for Contaminants and Toxins in Food and Feed	1995
196	Standard for Litchi	1995
197	Standard for Avocado	1995
198	Standard for Rice	1995

199	Standard for Wheat and Durum Wheat	1995
200	Standard for Peanuts	1995
201	Standard for Oats	1995
202	Standard for Couscous	1995
203	Standard for Formula Foods for Use in Very Low Energy Diets for Weight Reduction	1995
204	Standard for Mangosteens	1997
205	Standard for Bananas	1997
206	General Standard for Use of Dairy Terms	1999
207	Standard for Milk Powders and Cream Powder	1999
208	Standard for Cheeses in Brine (Group Standard)	1999
210	Standard for Named Vegetable Oils	1999
211	Standard for Named Animal Fats	1999
212	Standard for Sugars	1999
213	Standard for Limes	1999
214	Standard for Pummelos (Citrus grandis)	1999
215	Standard for Guavas	1999
216	Standard for Chayotes	1999
217	Standard for Mexican Limes	1999
218	Standard for Ginger	1999
219	Standard for Grapefruits (Citrus paradisi)	1999
220	Standard for Longans	1999
221	Group Standard for Unripened Cheese including Fresh Cheese	2001
222	Standard for Crackers from Marine and Freshwater Fish, Crustaceans and Molluscan Shellfish	2001
223	Standard for Kimchi	2001
224	Standard for Tannia	2001
225	Standard for Asparagus	2001
226	Standard for Cape Gooseberry	2001
227	General Standard for Bottled/Packaged Drinking Waters (Other Than Natural Mineral Waters)	2001
228	General Methods of Analysis for Contaminants	2001
229	Analysis of Pesticide Residues: Recommended Methods	
231	General Codex Methods for the Detection of Irradiated Foods	2001
234	Recommended Methods of Analysis and Sampling	1999
236	Standard for Boiled Dried Salted Anchovies	2003
237	Standard for Pitahayas	2003
238	Standard for Sweet Cassava	2003

239	General Methods of Analysis for Food Additives	2003
240	Standard for Aqueous Coconut Products: Coconut Milk and Coconut Cream	2003
241	Standard for Canned Bamboo Shoots	2003
242	Standard for Canned Stone Fruits	2003
243	Standard for Fermented Milks	2003
244	Standard for Salted Atlantic Herring and Salted Sprat	2004
245	Standard for Oranges	2004
246	Standard for Rambutan	2005
247	General Standard for Fruit Juices and Nectars	2005
249	Standard for Instant Noodles	2006
250	Standard for a Blend of Evaporated Skimmed Milk and Vegetable Fat	2006
251	Standard for a Blend of Skimmed Milk and Vegetable Fat in Powdered Form	2006
252	Standard for a Blend of Sweetened Condensed Skimmed Milk and Vegetable Fat	2006
253	Standard for Dairy Fat Spreads	2006
254	Standard for Certain Canned Citrus Fruits	2007
255	Standard for Table Grapes	2007
256	Standard for Fat Spreads and Blended Spreads	2007
257R	Regional Standard for Canned Humus with Tehena	2007
258R	Regional Standard for Canned Foul Medames	2007
259R	Regional Standard for Tehena	2007
260	Standard for Pickled Fruits and Vegetables	2007
262	Standard for Mozzarella	2007
263	Standard for Cheddar	1966
264	Standard for Danbo	1966
265	Standard for Edam	1966
266	Standard for Gouda	1966
267	Standard for Havarti	1966
268	Standard for Samsøe	1966
269	Standard for Emmental	1967
270	Standard for Tilsiter	1968
271	Standard for Saint-Paulin	1968

272	Standard for Provolone	1968
273	Standard for Cottage Cheese incl. Creamed Cottage Cheese	1968
274	Standard for Coulommiers	1969
275	Standard for Cream Cheese	1973
276	Standard for Camembert	1973
277	Standard for Brie	1973
278	Standard for Extra Hard Grating Cheese	1978
279	Standard for Butter	1971
280	Standard for Milkfat Products	1973
281	Standard for Evaporated Milks	1971
282	Standard for Sweetened Condensed Milks	1971
283	General Standard for Cheese	1978
284	Standard for Whey Cheeses	1971
285	General Standard for Named Variety Process(ed) Cheese and Spreadable Process(ed) Cheese	1978
286	Standard for Process(ed) Cheese and Spreadable Process(ed) Cheese	1978
287	Standard for Process(ed) Cheese Preparations (Process(ed) Cheese Food and Process(ed) Cheese Spread)	1978
288	Standard for Cream and Prepared Creams	1976
289	Standard for Whey Powders	1995
290	Standard for Edible Casein Products	1995
292	Standard for Live and Raw Bivalve Molluscs	2008
293	Standard for Tomatoes	2008
294R	Regional Standard for Gochujang	2009
295R	Regional Standard for Ginseng Products	2009
296	Standard for Jams, Jellies and Marmalades	2009
297	Standard for Certain Canned Vegetables	2009
298R	Regional Standard for Fermented Soybean Paste	2009

Category items in ANNEX B are shown in Table 3.1-3 and Table 3.1-4 presents cross-reference list in ANNEX C.

Table 3.1-3 ANNEX B: Food Category System

01.0	Dairy products, excluding products of food category 02.0
01.1	Milk and dairy-based drinks
01.1.1	Milk and butter milk
01.1.1.1	Milk, including sterilized and UHT goats milk
01.1.1.2	Butter milk (plain)
01.1.2	Dairy-based drinks, flavoured and/or fermented (e.g., chocolate milk, cocoa, eggnog)
01.2	Fermented and renneted milk products (plain), excluding food category (dairy-based drinks)
01.2.1	Fermented milks (plain)
01.2.1.1	Not heat-treated after fermentation
01.2.1.2	Heat-treated after fermentation
01.2.2	Renneted milk
01.3	Condensed milk (plain) and analogues
01.3.1	Condensed milk (plain)
01.3.2	Beverage whiteners
01.4	Cream (plain) and the like
01.4.1	Pasteurized cream
01.4.2	Sterilized, UHT, whipping or whipped and reduced fat creams
01.4.3	Clotted cream
01.4.4	Cream analogues
01.5	Milk powder and cream powder(plain)
01.5.1	Milk and cream powder
01.5.2	Milk and cream powder analogues
01.6	Cheese and analogues
01.6.1	Unripened cheese
01.6.2	Ripened cheese
01.6.2.1	Ripened cheese, includes rind
01.6.2.2	Rind of ripened cheese
01.6.2.3	Cheese powder (for reconstitution; e.g., for cheese sauces)
01.6.3	Whey cheese
01.6.4	Processed cheese
01.6.4.1	Plain processed cheese
01.6.4.2	Flavoured processed cheese, including containing fruit, vegetables, meat, etc.
01.6.5	Cheese analogues
01.6.6	Whey protein cheese
01.7	Dairy-based desserts (e.g., ice cream, ice milk, pudding, fruit or flavoured yoghurt)
01.8	Whey and whey products, excluding whey cheese
01.8.1	Liquid whey and whey products, excluding whey cheese
01.8.2	Dried whey and whey products, excluding whey cheese
02.0	Fats and oils, and fat emulsions
02.1	Fats and oils essentially free from water
02.1.1	Butter oil, anhydrous milkfat, ghee
02.1.2	Vegetable oils and fats
02.1.3	Lard, tallow, fish oil, and other animal fats
02.2	Fat emulsions mainly of type water-in-oil
02.2.1	Butter
02.2.2	Fat spreads, dairy fat spreads and blended spreads
02.3	Fat emulsions mainly of type oil-in-water, including mixed and/or flavoured products based on fat emulsions
02.4	Fat based desserts excluding dairy-based dessert products of food category 01.7
03.0	Edible ices, including sherbet and sorbet

- 04.0 Fruits and vegetables (including mushrooms and fungi, root & tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds
 - 04.1 Fruit
 - 04.1.1 Fresh fruit
 - 04.1.1.1 Untreated fresh fruit
 - 04.1.1.2 Surface-treated fresh fruit
 - 04.1.1.3 Peeled or cut fresh fruit
 - 04.1.2 Processed fruit
 - 04.1.2.1 Frozen fruit
 - 04.1.2.2 Dried fruit
 - 04.1.2.3 Fruit in vinegar, oil, or brine
 - 04.1.2.4 Canned or bottled (pasteurized) fruit
 - 04.1.2.5 Jams, jellies, marmelades
 - 04.1.2.6 Fruit-based spreads (e.g., chutney) excluding products of food category 04.1.2.5
 - 04.1.2.7 Candied fruit
 - 04.1.2.8 Fruit preparations, including pulp, purees, fruit toppings and coconut milk
 - 04.1.2.9 Fruit-based desserts, including fruit-flavoured water-based desserts
 - 04.1.2.10 Fermented fruit products
 - 04.1.2.11 Fruit fillings for pastries
 - 04.1.2.12 Cooked fruit
 - 04.2 Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and seaweeds, and aloe vera), seaweeds, and nuts and seeds
 - 04.2.1 Fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds
 - 04.2.1.1 Untreated fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes (including soybeans), and aloe vera), seaweeds, and nuts and seeds
 - 04.2.1.2 Surface-treated fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds
 - 04.2.1.3 Peeled, cut or shredded fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds
 - 04.2.2 Processed vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds
 - 04.2.2.1 Frozen vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds
 - 04.2.2.2 Dried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds
 - 04.2.2.3 Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds in vinegar, oil, brine, or soy sauce
 - 04.2.2.4 Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds
 - 04.2.2.5 Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nut and seed purees and spreads (e.g., peanut butter)
 - 04.2.2.6 Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nut and seed pulps and preparations (e.g., vegetable desserts and sauces, candied vegetables) other than food category 04.2.2.5

- 04.2.2.7 Fermented vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds products, excluding fermented soybean products of food categories 06.8.6, 06.8.7, 12.9.1, 12.9.2.1 and 12.9.2.3
- 04.2.2.8 Cooked or fried vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera) and seaweeds
- 05.0 Confectionery
 - 05.01 Cocoa products and chocolate products, including imitations and chocolate substitutes
 - 05.1.1 Cocoa mixes (powders) and cocoa mass/cake
 - 05.1.2 Cocoa mixes (syrops)
 - 05.1.3 Cocoa-based spreads, including fillings
 - 05.1.4 Cocoa and chocolate products
 - 05.1.5 Imitation chocolate, chocolate substitute products
 - 05.2 Confectionery including hard and soft candy, nougats, etc. other than food categories 05.1, 05.3, and 05.4
 - 05.2.1 Hard candy
 - 05.2.2 Soft candy
 - 05.2.3 Nougats and marzipans
 - 05.3 Chewing gum
 - 05.4 Decorations (e.g., for fine bakery wares), toppings (non-fruit) and sweet sauces
- 06.0 Cereals and cereal products, derived from cereal grains, from roots and tubers, pulses and legumes, excluding bakery wares of food category 07.0
 - 06.1 Whole, broken, or flaked grain, including rice
 - 06.2 Flours and starches (including soybean powder)
 - 06.2.1 Flours
 - 06.2.2 Starches
 - 06.3 Breakfast cereals, including rolled oats
 - 06.4 Pastas and noodle and like products (e.g., rice paper, rice vermicelli, soybean pastas and noodles)
 - 06.4.1 Fresh pastas and noodles and like products
 - 06.4.2 Dried pastas and noodles and like products
 - 06.4.3 Pre-cooked pastas and noodles and like products
 - 06.5 Cereals and starch based desserts (e.g., rice pudding, tapioca pudding)
 - 06.6 Batters (e.g., for breading or batters for fish or poultry)
 - 06.7 Pre-cooked or processed rice products, including rice cake (Oriental type only)
 - 06.8 Soybean products (excluding soybean-based seasonings and condiments of food category 12.9)
 - 06.8.1 Soybean-based beverages
 - 06.8.2 Soybean-based beverage film
 - 06.8.3 Soybean curd (tofu)
 - 06.8.4 Semi-dehydrated soybean curd
 - 06.8.4.1 Thick gravy-stewed semi-dehydrated soybean curd
 - 06.8.4.2 Deep fried semi-dehydrated soybean curd
 - 06.8.4.3 Semi-dehydrated soybean curd, other than food categories 06.8.4.1 and 06.8.4.2
 - 06.8.5 Dehydrated soybean curd (kori tofu)
 - 06.8.6 Fermented soybean (e.g., natto, tempe)
 - 06.8.7 Fermented soybean curd
 - 06.8.8 Other soybean protein products
- 07.0 Bakery wares
 - 07.1 Bread and ordinary bakery wares
 - 07.1.1 Breads and rolls
 - 07.1.1.1 Yeast-leavened breads and specialty breads
 - 07.1.1.2 Soda breads
 - 07.1.2 Crackers, excluding sweet crackers
 - 07.1.3 Other ordinary bakery products (e.g., bagels, pita, English muffins)
 - 07.1.4 Breads-type products, including bread stuffing and bread

- crumbs
- 07.1.5 Steamed breads and buns
- 07.1.6 Mixes for breads and ordinary bakery wares
- 07.2 Fine bakery wares (sweet, salty, savoury) and mixes
 - 07.2.1 Cakes, cookies, and pies (e.g., fruit-filled or custard types)
 - 07.2.2 Other fine bakery products (e.g., doughnuts, sweet rolls, scones, and muffins)
 - 07.2.3 Mixes for fine bakery wares (e.g., cakes, pancakes)
- 08.0 Meat and meat products, including poultry and game
 - 08.1 Fresh meat, poultry and game
 - 08.1.1 Fresh meat, poultry and game, whole pieces or cuts
 - 08.1.2 Fresh meat, poultry and game, comminuted
 - 08.2 Processed meat, poultry and game products in whole pieces or cuts
 - 08.2.1 Non-heat treated processed meat, poultry and game products in whole pieces or cuts
 - 08.2.1.1 Cured (including salted) non-heat treated processed meat, poultry and game products in whole pieces or cuts
 - 08.2.1.2 Cured (including salted) and dried non-heat treated processed meat, poultry and game products in whole pieces or cuts
 - 08.2.1.3 Fermented non-heat treated processed meat, poultry and game products in whole pieces or cuts
 - 08.2.2 Heat-treated processed meat, poultry and game products in whole pieces or cuts
 - 08.2.3 Frozen processed meat, poultry and game products in whole pieces or cuts
 - 08.3 Processed comminuted meat, poultry, and game products
 - 08.3.1 Non-heat treated processed comminuted meat, poultry, and game products
 - 08.3.1.1 Cured (including salted) non-heat treated processed comminuted meat, poultry, and game products
 - 08.3.1.2 Cured (including salted) and dried non-heat treated processed comminuted meat, poultry, and game products
 - 08.3.1.3 Fermented non-heat treated processed comminuted meat, poultry, and game products
 - 08.3.2 Heat-treated processed comminuted meat, poultry, and game products
 - 08.3.3 Frozen processed comminuted meat, poultry, and game products
 - 08.4 Edible casings (e.g., sausage casings)
- 09.0 Fish and fish products, including mollusks, crustaceans, and echinoderms
 - 09.1 Fresh fish and fish products including mollusks, crustaceans, and echinoderms
 - 09.1.1 Fresh fish
 - 09.1.2 Fresh mollusks, crustaceans, and echinoderms
 - 09.2 Processed fish and fish products, including mollusks, crustaceans, and echinoderms
 - 09.2.1 Frozen fish, fish fillets, and fish products, including mollusks, crustaceans, and echinoderms
 - 09.2.2 Frozen battered fish, fish fillets and fish products, including mollusks, crustaceans, and echinoderms
 - 09.2.3 Frozen minced and creamed fish products, including mollusks, crustaceans, and echinoderms
 - 09.2.4 Cooked and/or fried fish and fish products, including mollusks, crustaceans, and echinoderms
 - 09.2.4.1 Cooked fish and fish products
 - 09.2.4.2 Cooked mollusks, crustaceans, and echinoderms
 - 09.2.4.3 Fried fish and fish products, including mollusks, crustaceans, and echinoderms
 - 09.2.5 Smoked, dried, fermented, and/or salted fish and fish products, including mollusks, crustaceans, and echinoderms
 - 09.3 Semi-preserved fish and fish products, including mollusks, crustaceans,

- and echinoderms
- 09.3.1 Fish and fish products, including mollusks, crustaceans, and echinoderms, marinated and/or in jelly
- 09.3.2 Fish and fish products, including mollusks, crustaceans, and echinoderms, pickled and/or in brine
- 09.3.3 Salmon substitutes, caviar, and other fish roe products
- 09.3.4 Semi-preserved fish and fish products, including mollusks, crustaceans, and echinoderms (e.g., fish paste) excluding products of food categories 09.3.1-09.3.3
- 09.4 Fully preserved, incl. canned or fermented fish and fish products, including mollusks, crustaceans, and echinoderms
- 10.0 Eggs and egg products
 - 10.1 Fresh eggs
 - 10.2 Egg products
 - 10.2.1 Liquid egg products
 - 10.2.2 Frozen egg products
 - 10.2.3 Dried and/or heat coagulated egg products
 - 10.3 Preserved eggs, including alkaline, salted, and canned eggs
 - 10.4 Egg-based desserts (e.g., custard)
- 11.0 Sweeteners, including honey
 - 11.1 Refined and raw sugar
 - 11.1.1 White sugar, dextrose anhydrous, dextrose monohydrate, fructose
 - 11.1.2 Powdered sugar, powdered dextrose
 - 11.1.3 Soft white sugar, soft brown sugar, glucose syrup, dried glucose syrup, raw cane sugar
 - 11.1.3.1 Dried glucose syrup used to manufacture sugar confectionery
 - 11.1.3.2 Glucose syrup used to manufacture sugar confectionery
 - 11.1.4 Lactose
 - 11.1.5 Plantation or mill white sugar
 - 11.2 Brown sugar excluding products of food category 11.1.3
 - 11.3 Sugar solutions syrup, also (partially) inverted, including treacle and molasses, excluding products of food category 11.1.3
 - 11.4 Other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)
 - 11.5 Honey
 - 11.6 Table-top sweeteners, including those containing high-intensity sweeteners
- 12.0 Salts, spices, soups, sauces, salads, protein products
 - 12.1 Salt and substitutes
 - 12.1.1 Salt
 - 12.1.2 Salt substitute
 - 12.2 Herbs, spices, seasonings, and condiments (e.g., seasoning for instant noodles)
 - 12.2.1 Herbs
 - 12.2.2 Spices
 - 12.3 Vinegars
 - 12.4 Mustards
 - 12.5 Soups and broths
 - 12.5.1 Ready-to-eat soups and broths, including canned, bottled, and frozen
 - 12.5.2 Mixes for soups and broth
 - 12.6 Sauces and like products
 - 12.6.1 Emulsified sauces (e.g., mayonnaise, salad dressing)
 - 12.6.2 Non-emulsified sauces (e.g., ketchup, cheese sauce, cream sauce, brown gravy)
 - 12.6.3 Mixes for sauces and gravies
 - 12.6.4 Clear sauces (e.g., fish sauce)
 - 12.7 Salads (e.g., macaroni salad, potato salad) and sandwich spreads excluding cocoa- and nut-based spreads of food categories of 04.2.2.5 and 05.1.3
 - 12.8 Yeast and like products
 - 12.9 Soybean-based seasonings and condiments
 - 12.9.1 Fermented soybean paste (e.g., miso)

- 12.9.2 Soybean sauce
 - 12.9.2.1 Fermented soybean sauce
 - 12.9.2.2 Non-fermented soybean sauce
 - 12.9.2.3 Other soybean sauces
- 12.1 Protein products other than from soybeans
- 13.0 Foodstuffs intended for particular nutritional uses
 - 13.1 Infant formulae, follow-on formulae, and formulae for special medical purposes for infants
 - 13.1.1 Infant formulae
 - 13.1.2 Follow-up formulae
 - 13.1.3 Formulae for special medical purposes for infants
 - 13.2 Complementary foods for infants and young children
 - 13.3 Dietetic foods intended for special medical purposes (excluding products of food category 13.1)
 - 13.4 Dietetic formulae for slimming purposes and weight reduction
 - 13.5 Dietetic foods (e.g., supplementary foods for dietary use) excluding products of food categories 13.1-13.4 and 13.6
 - 13.6 Food supplements
- 14.0 Beverages, excluding dairy products
 - 14.1 Non-alcoholic (“soft”) beverages
 - 14.1.1 Waters
 - 14.1.1.1 Natural mineral waters and source waters
 - 14.1.1.2 Table waters and soda waters
 - 14.1.2 Fruit and vegetable juices
 - 14.1.2.1 Fruit juice
 - 14.1.2.2 Vegetable juice
 - 14.1.2.3 Concentrates for fruit juice
 - 14.1.2.4 Concentrates for vegetable juice
 - 14.1.3 Fruit and vegetable nectars
 - 14.1.3.1 Fruit nectar
 - 14.1.3.2 Vegetable nectar
 - 14.1.3.3 Concentrates for fruit nectar
 - 14.1.3.4 Concentrates for vegetable nectar
 - 14.1.4 Water-based flavoured drinks, including “sport”, “energy”, or “electrolyte” drinks and particulated drinks
 - 14.1.4.1 Carbonated water-based flavoured drinks
 - 14.1.4.2 Non-carbonated water-based flavoured drinks, including punches and ades
 - 14.1.4.3 Concentrates (liquid or solid) for water-based flavoured drinks
 - 14.1.5 Coffee, coffee substitutes, tea, herbal infusions, and other hot cereal and grain beverages, excluding cocoa
 - 14.2 Alcoholic beverages, including alcohol-free and low-alcoholic counterparts
 - 14.2.1 Beer and malt beverages
 - 14.2.2 Cider and perry
 - 14.2.3 Grape wines
 - 14.2.3.1 Still grape wine
 - 14.2.3.2 Sparkling and semi-sparkling grape wine
 - 14.2.3.3 Fortified grape wine, grape liquor wine, and sweet grape wine
 - 14.2.4 Wine (other than grape)
 - 14.2.5 Mead
 - 14.2.6 Distilled spirituous beverage containing more than 15% alcohol
 - 14.2.7 Aromatized alcoholic beverages (e.g., beer, wine and spirituous cooler-type beverages, low-alcoholic refreshers)
- 15.0 Ready-to-eat savouries
 - 15.1 Snacks-potato, cereal, flour or starch based (from roots and tubers, pulses and legumes)
 - 15.2 Processed nuts, including coated nuts and nut mixtures (with e.g., dried fruit)
 - 15.3 Snacks-fish based
- 16.0 Composite foods-foods that could not be placed in categories 01-15.

By Japan Food Additives Association

Table 3.1-4 ANNEX C: Cross-Reference List

Food Cat.No.	Title	Stan. No.
01.2.1	Fermented Milks (plain)	243-2003
01.2.1.1	Fermented Milks (plain, non-heat treated)	243-2003
01.2.1.2	Fermented Milks (plain, heat treated)	243-2003
01.3.1	Evaporated milks	281-1971
01.3.1	Sweetened Condensed Milks	282-1971
01.3.2	Blend of Evaporated Skimmed Milk and Vegetable Fat	250-2006
01.3.2	Blend of Sweetened Condensed Milk and Vegetable Fat	252-2006
01.4.1	Cream and Prepared Creams (reconstituted cream, recombined cream, prepackaged liquid cream)	288-1976
01.4.2	Cream and Prepared Creams (whipping cream, cream packaged under pressure, whipped cream)	288-1976
01.4.3	Cream and Prepared Creams (fermented cream, acidified cream)	288-1976
01.5.1	Milk Powders and Cream Powders	207-1999
01.5.1	Edible Casein Products	290-1995
01.5.2	Blend of Skimmed Milk and Vegetable Fat in Powdered Form	251-2006
01.6.1	Unripened Cheese, including Fresh Cheese	221-2001
01.6.1	Mozzarella	262-2007
01.6.1	Cottage Cheese	273-1968
01.6.1	Cream Cheese (Rahmfrischkäse)	275-1973
01.6.1	Cheese (unripened, including fresh cheese) - See also CODEX STAN 221-2001	283-1978
01.6.2.1	Cheeses in Brine	208-1999
01.6.2.1	Cheddar	263-1966
01.6.2.1	Danbo	264-1966
01.6.2.1	Edam	265-1966
01.6.2.1	Gouda	266-1966
01.6.2.1	Havarti	267-1966
01.6.2.1	Samsøe	268-1966
01.6.2.1	Emmental	269-1967
01.6.2.1	Tilsiter	270-1968
01.6.2.1	Saint Paulin	271-1968
01.6.2.1	Provolone	272-1968
01.6.2.1	Coulommiers	274-1969
01.6.2.1	Camembert	276-1973
01.6.2.1	Brie	277-1973
01.6.2.1	Extra Hard Grating Cheese	278-1978
01.6.2.1	Cheese (ripened, including mould ripened)	283-1978
01.6.3	Whey Cheeses (whey cheese)	284-1971
01.6.4	Named Variety Process(ed) Cheese and Spreadable Process(ed) Cheese	285-1978
01.6.4	Process(ed) Cheese and Spreadable Process(ed) Cheese	286-1978
01.6.4	Process(ed) Cheese Preparations (Process(ed) Cheese Food and Process(ed) Cheese Spread)	287-1978
01.6.6	Whey Cheeses (whey protein cheese)	284-1971
01.7	Fermented Milks (flavoured, heat treated and non-heat treated)	243-2003
01.8.2	Whey powders	289-1995
02.1	Edible Fats and Oils Not Covered by Individual Standards (General Standard)	019-1981
02.1.1	Milkfat Products	280-1973
02.1.2	Named Vegetable Oils	210-1999
02.1.2	Olive Oil, Virgin and Refined, and Refined Olive Pomace Oil, Olive Oils and Olive Pomace Oils	033-1981
02.1.3	Named Animal Fats	211-1999
02.2.1	Butter	279-1971
02.2.2	Dairy Fat Spreads	253-2006
02.2.2	Fat Spreads and Blended Spreads	256-2007
04.1.1.1	Dates (fresh)	143-1985
04.1.1.1	Pineapple	182-1993
04.1.1.1	Papaya	183-1993
04.1.1.1	Mango	184-1993
04.1.1.1	Carambola	187-1993
04.1.1.1	Litchi	196-1995

04.1.1.1	Mangosteens	204-1997
04.1.1.1	Bananas	205-1997
04.1.1.1	Limes	213-1999
04.1.1.1	Pumelos (<i>Citrus grand</i>)	214-1999
04.1.1.1	Guavas	215-1999
04.1.1.1	Chayotes	216-1999
04.1.1.1	Mexican Limes	217-1999
04.1.1.1	Grapefruits (<i>Citrus paradisi</i>)	219-1999
04.1.1.1	Longans	220-1999
04.1.1.1	Cape Gooseberry	226-2001
04.1.1.1	Pitahayas	237-2003
04.1.1.1	Oranges	245-2004
04.1.1.1	Rambutan	246-2005
04.1.1.1	Table Grapes	255-2007
04.1.1.2	Dates (coated)	143-1985
04.1.2.1	Quick Frozen Strawberries	052-1981
04.1.2.1	Quick Frozen Raspberries	069-1981
04.1.2.1	Quick Frozen Peaches	075-1981
04.1.2.1	Quick Frozen Bilberries	076-1981
04.1.2.1	Quick Frozen Blueberries	103-1981
04.1.2.2	Raisins	067-1981
04.1.2.2	Dried Apricots	130-1981
04.1.2.2	Grated Desiccated Coconut	177-1991
04.1.2.3	Pickled Fruits and Vegetables (pickled fruits)	260-2007
04.1.2.4	Canned Applesauce	017-1981
04.1.2.4	Canned Pineapple	042-1981
04.1.2.4	Canned Raspberries	060-1981
04.1.2.4	Canned Pears	061-1985
04.1.2.4	Canned Strawberries	062-1987
04.1.2.4	Canned Fruit Cocktail	078-1981
04.1.2.4	Canned Tropical Fruit Salad	099-1981
04.1.2.4	Canned Mangoes	159-1987
04.1.2.4	Canned Stone Fruits	242-2003
04.1.2.4	Certain Canned Citrus Fruits	254-2007
04.1.2.5	Jams, Jellies and Marmalades	296-2009
04.1.2.6	Mango Chutney	160-1987
04.1.2.8	Aqueous Coconut Products (coconut milk and coconut cream)	240-2003
04.1.2.10	Pickled Fruits and Vegetables (fermented fruits)	260-2007

04.2.1.1	Edible Fungi and Fungi Products (edible fungi)	038-1981
04.2.1.1	Fresh Fungus "Chanterelle"	040-1981
04.2.1.1	Unshelled Pistachio Nuts	131-1981
04.2.1.1	Certain Pulses	171-1989
04.2.1.1	Nopal	185-1993
04.2.1.1	Prickly pear	186-1993
04.2.1.1	Baby Corn	188-1993
04.2.1.1	Avocado	197-1995
04.2.1.1	Peanuts	200-1995
04.2.1.1	Ginger	218-1999
04.2.1.1	Tannia	224-2001
04.2.1.1	Asparagus	225-2001
04.2.1.1	Sweet Cassava	238-2003
04.2.1.1	Tomatoes	293-2008
04.2.2	Edible Fungi and Fungi Products (fungus products)	038-1981
04.2.2.1	Edible Fungi and Fungi Products (quick frozen)	038-1981
04.2.2.1	Quick Frozen Peas	041-1981
04.2.2.1	Quick Frozen Spinach	077-1981
04.2.2.1	Quick Frozen Leek	104-1981
04.2.2.1	Quick Frozen Broccoli	110-1981
04.2.2.1	Quick Frozen Cauliflower	111-1981
04.2.2.1	Quick Frozen Brussels Sprouts	112-1981
04.2.2.1	Quick Frozen Green Beans and Wax	113-1981
04.2.2.1	Quick Frozen French-Fried Potatoes	114-1981
04.2.2.1	Quick Frozen Whole Kernel Corn	132-1981
04.2.2.1	Quick Frozen Corn-on-the-Cob	133-1981
04.2.2.1	Quick Frozen Carrots	140-1983
04.2.2.2	Edible Fungi and Fungi Products (incl. freeze dried, fungus grits and fungus powder)	038-1981
04.2.2.2	Dried Edible Fungi	039-1981
04.2.2.2	Ginseng Products (Regional Standard) (dried ginseng, dried raw ginseng, dried steamed ginseng)	295R-2009
04.2.2.3	Edible Fungi and Fungi Products (salted, pickled or in vegetable oil)	038-1981
04.2.2.3	Table Olives	066-1981
04.2.2.3	Pickled Cucumbers	115-1981

	(Cucumber Pickles)	
04.2.2.3	Pickled Fruits and Vegetables (pickled vegetables)	260-2007
04.2.2.4	Preserved Tomatoes	013-1981
04.2.2.4	Edible Fungi and Fungi Products (sterilized)	038-1981
04.2.2.4	Canned Mushrooms	055-1981
04.2.2.4	Canned Chestnuts and Canned Chestnut Puree	145-1985
04.2.2.4	Canned Bamboo Shoots	241-2003
04.2.2.4	Canned Humus with Tehena (Regional Standard)	257R-2007
04.2.2.4	Canned Foul Medames (Regional Standard)	258R-2007
04.2.2.4	Certain Canned Vegetables	297-2009
04.2.2.5	Processed Tomato Concentrates (tomato puree)	057-1981
04.2.2.6	Edible Fungi and Fungi Products (concentrate, dried concentrate or extract)	038-1981
04.2.2.6	Processed Tomato Concentrates (tomato paste)	057-1981
04.2.2.6	Tehena (Regional Standard)	259R-2007
04.2.2.6	Ginseng Products (Regional Standard) (ginseng extract, raw ginseng extract, steamed ginseng extract)	295R-2009
04.2.2.7	Edible Fungi and Fungi Products (fermented)	038-1981
04.2.2.7	Gari	151-1985
04.2.2.7	Kimchi	223-2001
04.2.2.7	Pickled Fruits and Vegetables (fermented vegetables)	260-2007
04.2.2.7	Gochujang (Regional Standard)	294R-2009
05.1.1	Cocoa Powders (Cocoa) and Dry Mixtures of Cocoa and Sugar	105-1981
05.1.1	Cocoa (Cacao) Mass (Cocoa/Chocolate Liquor) and Cocoa Cake	141-1983
05.1.3	Cocoa Butters	086-1981
05.1.4	Chocolate and Chocolate Products	087-1981
06.1	Maize (Corn)	153-1985
06.1	Whole and Decorticated Pearl	169-1989

	Millet Grains	
06.1	Sorghum Grains	172-1989
06.1	Rice	198-1995
06.1	Wheat and Durum Wheat	199-1995
06.1	Oats	201-1995
06.1	Couscous	202-1995
06.2.1	Wheat Flour	152-1985
06.2.1	Whole Maize (Corn) Meal	154-1985
06.2.1	Degermed Maize (Corn) Meal and Maize (Corn) Grits	155-1985
06.2.1	Pearl Millet Flour	170-1989
06.2.1	Sorghum Flour	173-1989
06.2.1	Edible Cassava Flour	176-1989
06.2.1	Durum Wheat Semolina and Durum Wheat Flour	178-1991
06.4.3	Instant Noodles	249-2006
06.8.8	Soy Protein Products	175-1989
08.2.2	Cooked Cured Ham	096-1981
08.2.2	Cooked Cured Pork Shoulder	097-1981
08.3.2	Canned Corned Beef	088-1981
08.3.2	Luncheon Meat	089-1981
08.3.2	Cooked Cured Chopped Meat	098-1981
09.1.2	Quick Frozen Raw Squid	191-1995
09.1.2	Raw and Live Bivalve Molluscs (live)	292-2008
09.1.2	Raw and Live Bivalve Molluscs (raw, chilled shucked)	292-2008
09.2.1	Quick-Frozen Finfish, Uneviscerated and Eviscerated	036-1981
09.2.1	Quick Frozen Shrimps or Prawns	092-1981
09.2.1	Quick Frozen Lobsters	095-1981
09.2.1	Quick Frozen Blocks of Fish Fillets, Minced Fish Flesh and Mixtures of Fillets and Minced Fish Flesh	165-1989
09.2.1	Quick Frozen Fish Fillets	190-1995
09.2.1	Raw and Live Bivalve Molluscs (raw, frozen)	292-2008
09.2.2	Quick Frozen Fish Sticks (Fish Fingers), Fish Portions and Fish Fillets -Breaded and in Batter	166-1989
09.2.5	Salted Fish and Dried Salted Fish of the Gadidae Family of Fishes	167-1989
09.2.5	Dried Shark Fins	189-1993

09.2.5	Crackers from Marine and Freshwater Fish, Crustaceans and Molluscan Shellfish	222-2001
09.2.5	Boiled Dried Salted Anchovies	236-2003
09.2.5	Salted Atlantic Herring and Salted Sprat 0	244-2004
09.4	Canned Shrimps or Prawns	037-1981
09.4	Canned Salmon	003-1981
09.4	Canned Tuna and Bonito	070-1981
09.4	Canned Crab Meat	090-1981
09.4	Canned Sardines and Sardine-Type Products	094-1981
09.4	Canned Finfish	119-1981
11.1.1	Sugars (white sugar, dextrose anhydrous, dextrose monohydrate, fructose)	212-1999
11.1.2	Sugars (powdered sugar and powdered dextrose)	212-1999
11.1.3	Sugars (glucose syrup, dried glucose, soft white sugar, brown sugar, raw cane sugar)	212-1999
11.1.4	Sugars (lactose)	212-1999
11.1.5	Sugars (plantation or white mill sugar)	212-1999
11.5	Honey	012-1981
12.1	Wheat Protein Products, Including Wheat Gluten	163-1987
12.1	Vegetable Protein Products	174-1989
12.1.1	Food Grade Salt	150-1985
12.1.2	Special Dietary Foods with Low-Sodium Content, including salt substitutes (salt substitutes)	053-1981
12.5	Bouillon and Consommés	117-1981
12.9.1	Fermented Soybean Paste (Regional Standard)	298R-2009

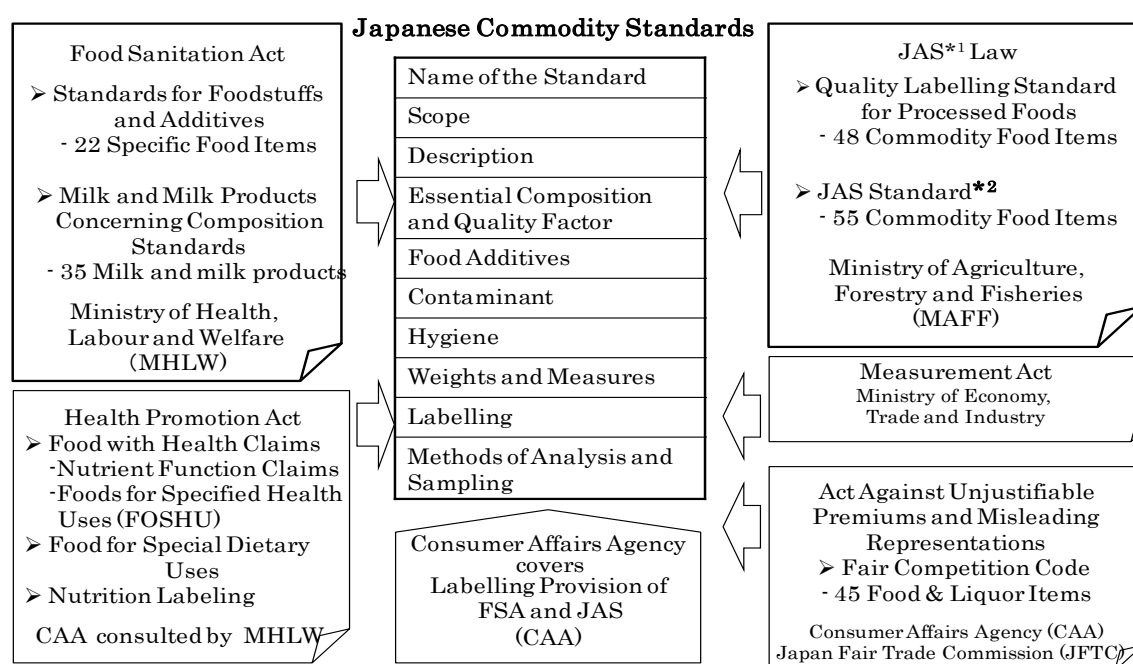
13.0	Special Dietary Foods with Low-Sodium Content, including salt substitutes (special dietary foods with low sodium content)	053-1981
13.1.1	Infant Formula and Formula for Special Dietary Purposes Intended for Infants (infant formula)	072-1981
13.1.2	Follow-Up Formula	156-1987
13.1.3	Infant formula and Formula for Special Dietary Purposes Intended for Infants (formula for special dietary purposes intended for infants)	072-1981
13.2	Canned Baby Foods	073-1981
13.2	Processed Cereal-Based Foods for Infants and Children	074-1981
13.3	Foods for Special Dietary Use for Persons Intolerant to Gluten	118-1981
13.4	Formula Foods for Use in Weight Control Diets	181-1991
13.4	Formula Foods for Use in Very Low Energy Diets for Weight Reduction	203-1995
14.1.1.1	Natural Mineral Waters	108-1981
14.1.1.2	Bottled/Packaged Drinking Waters (other than natural mineral water)	227-2001
14.1.2.1	Fruit Juices and Nectars (fruit juices)	247-2005
14.1.2.3	Fruit Juices and Nectars (concentrates for fruit juice)	247-2005
14.1.3.1	Fruit Juices and Nectars (fruit nectars)	247-2005
14.1.3.3	Fruit Juices and Nectars (concentrates for fruit nectars)	247-2005

3.2 Japan

3.2.1 Summary Chart of relationship between food regulatory system and commodity food standards

Summary chart of relationship between food regulation system and commodity food standards in Japan is shown in Figure 3.2-1 in a way that Codex Alimentarius Commission was presented in Figure 3.1-1. This section was prepared because it is important to introduce regulatory framework on foods in Japan for mutual understanding among member countries.

Figure 3.2-1



*1 Law Concerning Standardization and Proper Labelling of Agricultural and Forest Products

*2 voluntary (other than organic foods) standard with the certification system to attach the JAS Mark

*3 New governmental organization started in September 2009

3.2.2 Commodity Food Standards

3.2.2.1 The Law Concerning Standardization and Proper Labeling of Agricultural and Forestry Products

The law consists of combination of "JAS Standards System" which is voluntary except for the JAS Standards for Organic Foods, and "the Quality Labeling Standards System" which mandate for quality labeling purposes including name of food, raw materials and place/country of origin.

(1) The Quality Labeling Standards System

The Quality Labeling Standards System provides cross-category standards for

fresh foods, processed foods and genetically modified foods, and individual standards for 3 fresh foods and 48 processed foods (Table 3.2-1).

Table 3.2-1 Quality Labeling Standards

(MAFF) 2010.3

General Quality Labeling Standards			
<ul style="list-style-type: none"> • Quality Labeling Standards for Fresh Foods • Quality Labeling Standards for Processed Foods • Quality Labeling Standards for Genetically Modified Foods 			
Individual Quality Labeling Standards for Processed Foods			
Canned and Bottled products		25	Processes tomato potato
1	Canned and bottled agricultural products	26	Jams
2	Canned and bottled livestock products	27	Dried shiitake mushroom
3	Canned and bottled prepared foods	Marine Products	
Beverages		28	Processed <i>Uni</i> (sea urchin)
4	Fruits juice and fruit beverages	29	<i>Uni-Aemono</i> (mixture of sea urchin eggs and marine products)
5	Carbonated drinks	30	Dried <i>Wakame</i> (<i>undaria pinnatifida</i>)
6	Soy milks	31	Salted <i>Wakame</i>
7	Carrot juice, Mixed carrot juice	32	<i>Kezuribushi</i> (shaved dried fish)
Livestock and Fish Paste		33	Boiled and dried fishes
8	Bacon	34	Processed eel
9	Hams	Seasoning	
10	Pressed ham	35	Dressing and dressing type seasonings
11	Mixed pressed ham	36	Edible vinegar
12	Sausage	37	Flavored seasonings
13	Mixed sausage	38	Dehydrated soup
14	Chilled hamburger stake	39	Worcester sauces
15	Chilled meat ball	40	Shoyu(Soy sauce)
16	Fish ham, Fish sausage	41	Miso(soy bean paste)
17	Specially packed steamed fish paste	42	Tuyu(Dipping soup) for noodles
18	Flavored steamed fish paste	Oil and Fat	
Cereal Products		43	Edible vegetable oils and fats
19	Dried noodles	44	Margarine
20	Instant Noodle	Others	
21	Macaroni products	45	Retortable pouched food
22	Kori Dofu (dried frozen soy curd)	46	Frozen vegetable product
23	Breads	47	Chilled <i>Gyoza</i>
Agricultural and Forestry Products		48	Prepared frozen food
24	Pickled Agricultural products		

(2) JAS Standards System

JAS Standards mainly stipulate quality, composition, grade and usefulness for food, forest and agricultural products including silk and rush tatami facing. JAS Standards System is a certification system to bear JAS marks on the label through certification by Registered Certifying Bodies. Products should meet to JAS standards, standards for maintenance and quality control in manufacturing facility, performance of production process control etc.

As of March 2010, JAS Standards for food define 55 items in five areas (see Table 3.2-2).

Table 3.2-2 JAS Standards for Food

(MAFF) 2010.3

General JAS>		Seasoning	
Canned and Bottled Products		29	Dressings
1	Canned and bottled agricultural products	30	Fermented vinegar
2	Canned and bottled livestock products	31	Flavored seasonings
3	Canned and bottled marine products	32	Dehydrated soup
Beverage		33	Worcester sauces
4	Fruits juice and fruit beverages	34	<i>Shoyu</i> (soy sauce)
5	Apple straight pure juice	Oil and Fat	
6	Carbonated drinks	35	Edible vegetable oils and fats
7	Soy milks	36	Refined lard
8	Carrot juice, Mixed carrot juice	37	Margarines
Livestock products		38	Shortening
9	Bacon	39	Edible refined and processed oils and fats
10	Hams	others	
11	Pressed ham	40	Prepared frozen food
12	Sausage	<Specific JAS with production methods>	
13	Mixed sausage	41	Matured Bacon
14	Hamburger patty	42	Matured Hams
15	Chilled ham burg stake	43	Matured sausage
16	Chilled meat ball	44	Handmade dried noodles
Cereal Products		45	Naturally Grown Chicken
17	Dried noodles	<Organic JAS>	
18	Instant noodles	46	Organic agricultural products
19	Macaroni products	47	Organic Processed foods
20	Vegetable protein	48	Organic feeds
21	Bread crumbs	49	Organic livestock products
Processed agricultural products		<JAS with production information>	
22	Pickled agricultural products	50	Beef with the disclosed production information
23	Processed tomato products	51	Pork with the disclosed production information
24	Jams	52	Agricultural products with the disclosed production information
Processed Marine Products		53	Processed foods with the disclosed production information
25	<i>Kezuribushi</i> (shaved dried fish)	54	Farmed fishes with the disclosed production information
26	Boiled and dried fishes	<JAS with controlled constant temperature distribution>	
Sugars		55	Processed foods with controlled constant temperature distribution
27	Glucose		
28	High fructose corn syrup and sugar added high fructose corn syrup		

Table 3.2-3 Specific Food Items in the Standards for Foodstuffs and Additives
(MHLW) 2010.3

1	Soft Drink Beverages	12	Boiled Octopus
2	Powdered Soft Drink Beverages	13	Boiled Crab
3	Crushed Ice	14	Fresh Fish and Shellfish to be Eaten Raw
4	Frozen Confections	15	Oysters to be Eaten Raw
5	Meats and Whale Meat (with the exemption of frozen whale meat eaten raw)	16	Agar
6	Edible Birds' Eggs	17	Grains, Beans and Vegetables
7	Blood, Blood Corpuscles and Blood Plasma	18	Bean Jam or Further Processing
8	Meat Products	19	Soybean Curd ("tofu")
9	Whale Meat Products	20	Instant Noodles
10	Fish-paste Products	21	Frozen Foods
11	Salmon Roe and Cod Roe (defined as the ovaries of walleye or pollack preserved in salt; hereinafter the same in this section)	22	Food Packed in Containers and Sterilized by Pressurization and Heating

Note: 1. These standards are composed of 'Standard for Component', 'Standard for Production', 'Standard for Storage'
 2. Details of Food Additives are available in English
<http://www.mhlw.go.jp/english/topics/foodsafety/foodadditives/index.html>
 3. Details of Agricultural Chemical Residues are available in English
<http://www.mhlw.go.jp/english/topics/foodsafety/positivelist060228/index.html>

3.2.2.2 Food Sanitation Act and related regulations

Food Sanitation Act stipulates matters related food safety including food additives, pesticide residues, contaminants and hygiene.

(1) Standards for Foodstuffs and Additives (Notification of Ministry of Health and Welfare No. 370)

Standards for Foodstuffs and Additives define standards for component, production and storage for 22 specific food items, in addition to general standards for component, production, processing and preparation, and storage for food (see Table 3.2-3).

(2) Ministerial Ordinance Concerning Compositional Standards for Milk and Milk Products (Ordinance of Ministry of Health and Welfare No. 52)

For milk and milk products, the ordinance specifically stipulates standards for component, production, storage and hygiene (see Table 3.2-4).

3.2.2.3 Fair Competition Code for Labeling of Food Items

Fair Competition Code based on Act against Unjustifiable Premiums and Misleading Representations stipulates voluntary standards for labeling of food items for individual firms and industry associations (see Table 3.2-5), and is

Table 3.2-4 Milk and Milk Products Concerning Composition Standards

(MHLW) 2010.3

Raw Milk		18	Concentrated milk
1	Raw milk	19	Concentrated skimmed milk
2	Raw goat's milk	20	Evaporated milk
Drinking Liquid Milks and Milk drinks		21	Evaporated skimmed milk
3	Cow's milk	22	Sweetened condensed milk
4	Special cow's milk	23	Sweetened condensed skimmed milk
5	Pasteurized goat's milk	24	Whole milk powder
6	Composition-controlled cow's milk	25	Skimmed milk powder
7	Low fat cow's milk	26	Cream powder
8	Nonfat cow's milk	27	Whey powder
9	Processed milk	28	Whey powder protein concentrated
Milk Products		29	Buttermilk powder
10	Cream	30	Sweetened milk powder
11	Butter	31	Formulated milk powder
12	Butter oil	32	Fermented milk
13	Processed cheese	33	Lactic acid bacteria drinks (nonfat milk solid not less than 3.0%)
14	Concentrated whey	34	Milk drinks
15	Ice cream	35	Lactic acid bacteria drinks (nonfat milk solid less than 3.0%)
16	Ice milk		
17	Lacto ice		

Table 3.2-5 Fair Competition Code for Labeling of Food Items

(CAA/FTC) 2010.3

Milk and milk products		19	Instant noodles
1	Drinking milk	20	<i>Miso</i> (soy bean paste)
2	Fermented milk, Lactic acid bacteria beverage	Confectionary	
3	Pasteurized lactic acid bacteria beverage	21	Biscuits
4	Natural cheese, Processed cheese, Cheese food	22	Chocolates
5	Ice creams	23	Food using chocolate
Honeys		24	Chewing gum
6	Honeys	25	Souvenir for tourist
7	Royal jelly	Seasoning	
Processed marine Products		26	Edible vinegar
8	<i>Uni</i> (sea urchin) foods	27	Synthetic lemon juice
9	<i>Karashi Mentaiko</i> (spicy marinated roe of pollack)	28	Margarines
10	<i>Kezuribushi</i> (shaved dried fish)	29	Dressings
11	<i>Nori</i> (laver)	30	<i>Shoyu</i> (soy sauce)
Processed agricultural products		31	Table salt
12	Canned foods	Beverages	
13	Processed tomato	32	Fruit drinks
14	Powdered <i>Wasabi</i> (Japanese horseradish)	33	Coffee drinks
15	Raw noodles	34	Regular coffee, instant coffee
16	<i>Kori-dofu</i> (dried frozen soy curd)	35	<i>Moromi-su</i> (vinegar drink from residue of rice brandy)
17	Soy milks	Processed livestock	
18	Packed bread	36	Ham, sausage

governed by Consumers Affairs Agency and the Fair Trade Commission. When their activities violate the code, penalty shall be imposed to their business activity. The Fair Trade Commission could take an action against even an outsider in accordance with social recognition of the code.

3.2.3 Case Study (comparison with Codex Standards)

Standards for "Instant Noodles", "Carbonated Drinks" and "Prepared Frozen Foods" were selected and compared with Codex Standards. "Instant Noodles" are one of the noodles standardized in many East Asian countries. "Carbonated Drinks" is one of the common soft drinks. "Prepared Frozen Foods" are defined in detail by JAS system.

3.2.3.1 Instant Noodles

Codex Commodity Standard for Instant Noodles was proposed by Japan and other Asian countries and adopted in 2006. Instant noodles are classified in 06.4.3 Pre-cooked pastas and noodles and like products in FCS (Food Category System) and this standard is a sole commodity standard in 06.4 category: Pastas, Noodles and like products.

In Table 3.2-6, summaries of "Instant Noodles" were compared with Codex Commodity Standards, Quality Labeling Standards in JAS Law and JAS Standards.

3.2.3.2 Carbonated Soft Drinks

In FCS, beverages are classified in 14.0:Beverages excluding dairy products, 14.1:Non-alcoholic beverages and 14.2:Alcoholic beverages. Codex Commodity Standards defined in 14.1 are only for 3 items; Natural Mineral Waters (Stan 108-1981), Bottled/Packaged Waters other than natural mineral waters (Stan 227-2005) and Fruit juice and Nectars (Stan 247-2005).

Carbonated Drinks are fallen into 14.1.4.1:Carbonated water-based flavored drinks in 14.1.4:Water-based flavored drinks including sport drinks, energy drinks and electrolyte beverages.

In Food Sanitation Act, Carbonated Drinks are included in wide-ranging "Soft Drinks" defined in specified food items. Quality Labeling Standard and JAS Standard for "Carbonated Drinks" are set in JAS System. Summaries are compared in Table 3.2-7.

3.2.3.3 Prepared Frozen Foods

JAS Quality Labeling Standard defines that Prepared Frozen Foods are Frozen fried foods, Frozen Shaomai, Frozen Gyoza, Frozen Harumaki (spring rolls),

Frozen Hamburger Steaks, Frozen Meatballs, Frozen Fish hamburgers, Frozen Fishballs, Frozen Steamed Rice and Frozen noodles. Prepared Frozen Foods are defined as food filled into containers or food packaged. Quality labeling standard are defined in details including name of materials, their contents, and percentage of coating and wrapping material. Prepared Frozen Foods was selected for a case study because large amounts of their materials and processed products are being imported to Japan and they are foods in high demand. In Food Sanitation Act, Prepared Frozen Foods are included in wide-ranging Frozen Foods defined in specified food items and should follow microbiological criteria and storage standards.

Twenty-three commodity standards for quick frozen foods (for example, vegetables, fruits, meat, fish and shellfish) are defined in Codex, while only one commodity standard for corresponding prepared frozen food in Japan (Quick frozen Fish Sticks (Fish fingers)), Fish portions and fish Fillets-Breaded in Batter (Stan 166-1989). Table 3.2-8 provides table for their comparison.

Table 3.2-6 Case Study 1 Instant Noodles

	Codex Commodity Standard	Food Sanitation Act	JAS Law	
		Standard for specific Items	Quality Labelling Standard	JAS Standard
Name of the Standard	Instant Noodles CODEX STAN 249-2006	Instant Noodles	Instant Noodles	Instant Noodles
Scope	ready for consumption after dehydration process.....	<ul style="list-style-type: none"> Fried noodles 	<ul style="list-style-type: none"> include raw type 	
Description	Fried noodles, Non-fried noodles			
Essential Composition and Quality Factor	3.1 Composition 3.1.1 Essential Ingredients 3.1.2 Optional Ingredients 3.2 Quality Criteria 3.2.1 Organoleptic 3.2.2 Foreign Matter 3.2.3 Analytical Requirement for Noodle Block (a) Moisture Content maximum : fried 10% : non-fried 14% (b) Acid value maximum 2mg KOH/g oil	<ul style="list-style-type: none"> Acid value not more than 3 mg KOH/g oil Peroxide value not more than 30 meq/kg 	<ul style="list-style-type: none"> Wheat flower and/or buckwheat flower as the main ingredients Add salt or lye water 	<ul style="list-style-type: none"> Moisture not more than 14.5% (non-fried) Acid value not more than 1.5 mg KOH/g oil pH 3.8-4.8 (non-fried)
Food Additives	MRLs of GSFA			<ul style="list-style-type: none"> Positive List (limited use)
Contaminant	MRLs of GSCTFF			

	Codex Commodity Standard	Food Sanitation Act	JAS Law	
		Standard for specific Items	Quality Labelling Standard	JAS Standard
Hygiene	6. Containers or Packing Condition 7.1 General Principle of Food Hygiene and other relevant Codex Text 7.2 Principle for the establishment and application of Microbiological Criteria for Foods	● Storage Standard		● Container and Packing Condition
Weights and Measures				
Labelling	8.1 Name of the Food 8.2 Labelling for "HALAL"		● Specific Labeling Methods	● JAS Mark
Methods of Analysis and Sampling	9.1 Sampling 9.2 Determination of Moisture 9.3 Extraction of Oil from Instant Noodle 9.4 Determination of Acid Value	● Acid value ● Peroxide value		● Moisture ● Acid value ● pH

* This Table does not contain details of standards regulated for all foodstuffs such as;

- Quality Labelling Standard for Processed Foods (JAS Law)
- General Compositional Standard for Food; General Food Production Processing and Preparation Standards; General Food Storage Standards (Food Sanitation Act)

Table 3.2-7 Case Study 2 Carbonate Soft Drinks

	Food Sanitation Act	JAS Law	
	Standard for Specific Items	Quality Labelling Standard	JAS Standard
Name of the Standard	Soft Drink Beverages	Carbonated Soft Drinks	Carbonated Soft Drinks
Scope	Non-alcoholic (less than 1% alcohol) beverages, excluding lactic acid bacterial drinks, milk and milk drinks	Water-based flavored drinks with added carbon dioxide, sweetener, acidulant and others	Water-based flavored drinks with added carbon dioxide, sweetener, acidulant and others
Description	<ul style="list-style-type: none"> ● Must not be turbid (with some exception) ● Must not contain any sediment or any solid foreign matter (with some exception) ● Must not contain detectable levels of arsenic, lead or cadmium. The tin content must not exceed 150.0 ppm ● Tests for coliform bacilli must be negative ● Mineral water with a carbon dioxide pressure inside of the container of not more than 98 kPa at 20 degree in Celsius , and that has not been sterilized or disinfected, must test negative for enterococci or green pus bacilli 		<ul style="list-style-type: none"> ● Must have satisfactory tone of color ● Must have refreshing flavor without off-taste and off-odor ● Must not be turbid (with some exception) ● Must carbon dioxide be dissolved well and have fine bubbles sustainably ● No foreign matters
Essential Composition and Quality Factor			
Contaminant Hygiene	<ul style="list-style-type: none"> ● For beverages made for solely apple juices and/or juiced fruit, the patulin content must not exceed 0.050 ppm 		<ul style="list-style-type: none"> ● Preservative: only sodium benzoate and p-hydroxybenzoic acid allowed to use ● Antioxidant: only L-ascorbic acid and sodium L-ascorbate allowed to use ● Emulsifier: only sucrose fatty acid ester and glycerin fatty acid ester allowed to use
Food Additives	<ul style="list-style-type: none"> ➢ Production Standards ➢ Packaging Standards ➢ Storage Standards 		
Weights and Measures			Must meet designated volume appeared on the label
Labelling		Specific labelling methods	JAS mark
Methods of Analysis and Sampling	<ul style="list-style-type: none"> ● Tests for arsenic, lead, cadmium, tin, patulin, ● coliform bacilli, enterococci or green pus bacilli ● Tests for water used as raw material ● Standards and testing methods for implements, containers and packaging 		<ul style="list-style-type: none"> ● Gas volume

Table 3.2-8 Case Study 3 Prepared Frozen Foods

JAS Quality Labelling Standard		
Prepared Frozen Foods (detail Items)		
➤ Frozen fried foods	<ul style="list-style-type: none"> • Fried Fishes • Fried Shrimps • Fried Squids • Fried Oysters • Croquettes • Katuretu(fried meat) 	Product names are defined by main material contents, limitation of alternative material, percentage of coatings, wrapping material etc.
<ul style="list-style-type: none"> ➤ Frozen Shaumai ➤ Frozen Gyoza ➤ Frozen Harumaki(spring rolls) ➤ Frozen Hamburger steaks ➤ Frozen Meatballs ➤ Frozen Fish hamburgers ➤ Frozen Fishballs ➤ Frozen Steamed Rice ➤ Frozen Noodles 		

Standard for Foodstuff (Food Sanitation Act)		
Frozen Foods		
Standard for Components (to be consumed)	Bacterial count	Coliform group
without heating	100,000/g>	Test negative
after heating (heated before freezing)	100,000/g>	Test negative
After heating (other than 2 above)	3,000,000/g>	Test negative
Storage Standard	must be below -15°C	

3.3 Korea

3.3.1 Acts and Regulations Related to Food Standards

3.3.1.1 Administrative authorities

Administrative authorities in Korea shown in Table 3.3-1 are responsible for food administration in accordance with food categories and control items.

Table 3.3-1 Food Safety Control System in Korea¹

Section	Production (Agriculture, Farming, Aquafarming)	Imported	Domestic
Agricultural Products	MIFAFF	KFDA	
Marine Products	MIFAFF	KFDA	
Livestock Products	MIFAFF	MIFAFF KFDA (Standards for Residual Harmful Substances)	
Bottled Mineral Waters	Ministry of Environment		
Alcoholic Beverages	National Tax Service KFDA (Standards for Residual Harmful Substances)		
School Meals	MEST Education Bureau KFDA (Safety Management for Group Feeding Facilities except for School Feeding Facilities)		

MIFAFF : Ministry for Food, Agriculture, Forestry and Fisheries

KFDA : Korea Food & Drug Administration

MEST : Ministry of Education, Science and Technology

KFDA² is a law-enforcement agency to promote the public health by ensuring the safety and efficacy of foods and pharmaceuticals, and to support the development of food and pharmaceutical industries. MIHWAF (Ministry of Health, Welfare and Family Affairs)³ is responsible for policymaking and legislation related to food safety. Korean Fair Trade Commission (KFTC) and Korea Consumer Agency (KCA) are responsible for proper labeling and protecting consumers.

¹Cherl-Ho Lee; 2009 ILSI BeSeTo Meeting on Food Safety: Report of the First Meeting in Seoul, Korea, 16p, 2009

² KFDA ; Vision <http://eng.kfda.go.kr/index.php> (Accessed: 2010/03/16)

³ MIHWAF; Food Safety Management

http://english.mw.go.kr/front_eng/jc/sjc0101mn.jsp?PAR_MENU_ID=1003&MENU_ID=10030101 (Accessed: 2010/03/16)

Unlike in Japan, there is no independent body for risk assessment in Korea. As presented in Table 3.3-1, KFDA and MIFAFF have both functions of risk management and risk assessment as two separate groups in the organizations intending to help consistent management and communication based on scientific assessment.

3.3.1.2 Related Acts and Regulations

Acts and regulations related to food include as follows; Food Sanitation Act, Health Functional Food Act, and Health Promotion Act set by MIHWAF; Monopoly Regulation, Fair Trade Act, and Fair Labeling and Advertizing Act set by Korea Fair Trade Commission; Consumer Protection Act covered by Korea Consumer Agency. Among these acts and regulations, Food Sanitation Act is mainly related to food standards. The Act and related rules in English version can be seen on the Web site of KFDA⁴.

MIFAFF provides quality labeling standards for proper labeling of agricultural products, fisheries products and livestock products. Scopes for these products are as follows;

- Agricultural Quality Standards: All agricultural products other than processed products (to which Food Sanitation Act is applied)
- Marine Quality Standards: All marine products including processed products (Disease Control Law of Marine Animals is applied to live marine animals and plants imported from third country)
- Livestock Quality Standards: Meat, milk, egg and their processed products

Moreover, MIFAFF operates various quality certification systems for labeling and food safety. The systems and their marks are shown as follows.

- Specific labeling certification system: Good Agricultural Practices (105 items), organic processed foods, genetically modified foods



⁴ KFDA ; Relevant Rule <http://eng.kfda.go.kr/index.php> (Accessed: 2010/03/19)

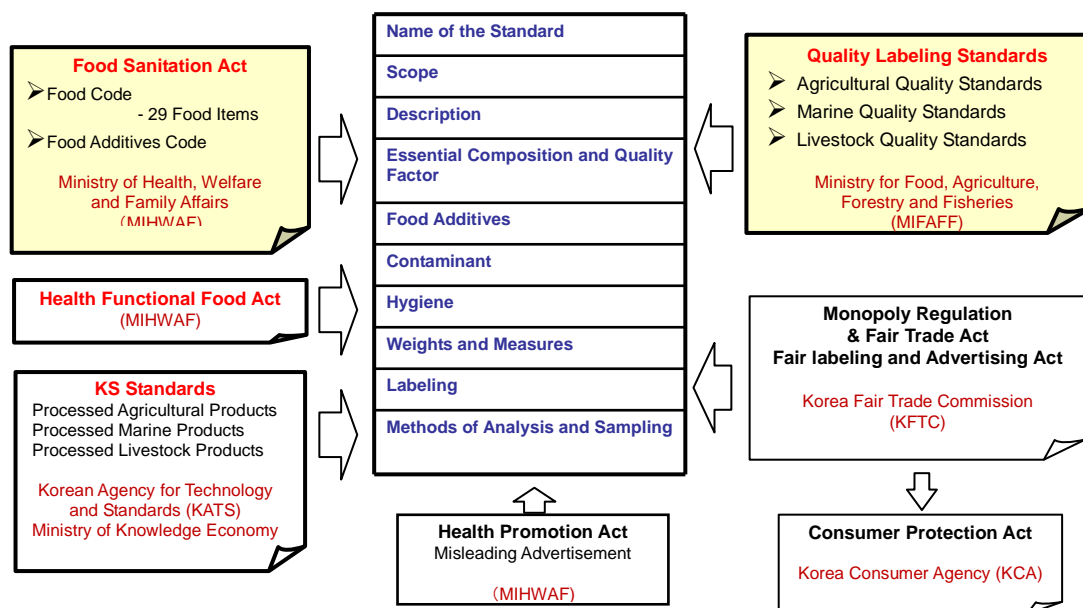
- Safety Certification System: HACCP, Traceability (agricultural products, livestock products, marine products), Livestock Products Safety Management System, SafeQ



3.3.2 Summary of Food Standards in Korea

Figure 3.3-1 is shown to compare existing food standards in Korea to Codex Standards as below. Food Code defined by Food Sanitation Act is mandatory standards including 29 food items. While, Korean Industrial Standards (KS) developed by Ministry of Knowledge Economy, Agency for Technology and Standards (KATS) is a voluntary standard like JAS standard to obtain certification mark. There are also MIFAFF standards covering some processed food, however we focused on 29 food items in Food Code and KS standards for further investigation. Meanwhile, food Additive Code⁵ laying down specifications and their criteria for use (including analytical methods) is commonly applied to all food.

Figure 3.3-1 Summary chart for food standard in Korea



⁵KFDA:Korea Food Additive Code (<http://fa.kfda.go.kr/foodadditivescode.html>) (Accessed: 2010/03/19)

3.3.2.1 Food Standards in Food Code

Food Code defines the followings; (1) Methods for food production, processing, preparation, usage, storage, as well as specifications of food composition, which are stipulated in Article 7-3 of Food Sanitation Act, (2) materials and production method for apparatus, container and packaging stipulated in Article 9-1, and (3) labeling standards for foods, food additives, apparatus, containers, packages and genetically modified foods stipulated in Article 10-1. Food Code provisions are shown below.

Article 1 General Provision

Article 2 General Standard and criteria for common foods

Article 3 Standards for long shell life foods

Article 4 Standards and criteria for common processed foods

Article 5 Commodity standards and criteria

Tables of commodity standards defined in Food Code are presented below.

Table 3.3-2 Commodity standards defined in Article 3 (long shell life foods)

1	Canned & Bottled Food
2	Retort Food
3	Frozen food

Table 3.3-3 Commodity standards defined in Article 5

1	Confectionaries	16	Teas
2	Breads or Rice Cakes	17	Coffees
3	Cocoa Products or Chocolates	18	Beverages
4	Jams	19	Foods for Special Dietary Uses
5	Sugars	20	Soy Sauces or Pastes
6	Glucoses	21	Seasonings
7	Fructoses	22	Dressings
8	Glutinous Rice Jellies (Yeat)	23	Kimchies
9	Sugar Syrups	24	Salted and Fermented Seafoods (Jeotkal)
10	Oligosaccharides	25	Pickles
11	Processed Meat and Egg Products	26	Hard-boiled Foods
12	Fish Products	27	Alcoholic Beverages
13	Bean-Curds or Starch Jellies (Mook)	28	Dried Fish/Shellfish Fillets
14	Edible Oils and Fats	29	Other Foods
15	Noodles		

3.3.2.2 Korean Industrial Standards (KS standards) defined by KATS⁶

KS standard is the set of national standards established under Industrial standardization Act. The use of KS mark on the label is authorized to the products which meet KS standards through factory inspection and audit. KS standards provide three types of standards; "product standard" for product quality and measurement method, "procedure standard" for requirements for analysis, test, inspection, and standardization of measurement, and "horizontal standard" for specific technology and technology regime. These standards can be developed based on proposals from stakeholders, and be set through reviewing in Korean Industrial Standardization Committee. Total number of KS standards is over 22000. Of them, 513 standards are related to food including "product standard" and "procedure standard" such as analytical methods for nutrients⁷. Lists of food "product standards" are presented in Table 3.3-4 to 3.3-7.



Figure 3.3-2 KS mark

Table 3.3-4 KS standards for processed agricultural products

1	Margarine	34	Instant coffee	67	Seasoning mixture sauce
2	Sugar	35	Roasted coffee	68	Jujube beverage
3	Biscuits	36	Tomato juice	69	Ginseng extracts
4	Milk caramels	37	Ginseng tea	70	Dried ginseng
5	Glucose	38	Soy sauce	71	Olive oil
6	Starch	39	Doenjang (Soybean paste)	72	Perilla oil
7	Chocolates	40	Gochujang (Red pepper paste)	73	Safflower seed oil
8	Wheat flours	41	Corn, canned	74	Sunflower seed oil
9	Fat spreads	42	Mushroom, canned	75	Peanut oil
10	High fructose corn syrup	43	Peaches, canned	76	Red pepper seed oil
11	Oligosaccharide	44	Bamboo shoots, canned	77	Concentrated fruit and/or vegetable juice
12	Fruit and/or vegetable puree or paste	45	Green peas, canned	78	Powdered fruit and/or vegetable juice
13	Fruit and/or vegetable processed foods	46	Chestnut, canned	79	Fruit and/or vegetable juice
14	Spice products	47	Pears, canned	80	Fruit and/or vegetable beverage
15	Soybean curd products	48	Grapes, canned	81	Fruit flesh beverages
16	Muk (Starch gel products)	49	Jams	82	Curry powder
17	Saengshik (Uncooked foods)	50	Asparagus, canned	83	Dry curry mix products
18	Grape seed oils	51	Mandarin orange, canned	84	Instant curry mix products
19	Processed fats and oils	52	Tomato ketchup	85	Fresh peeled chestnuts
20	Blended edible oils	53	Red pepper ground (powder)	86	Pickled cucumber
21	Other edible oils	54	Composite seasoning	87	Spirits
22	Flavored oils	55	Black tea	88	Vinegar
23	Dressing	56	Green Tea	89	Cooked rice
24	Soybean oil	57	Corn Oil	90	Mejoo (fermented soybean lump)
25	Canola oil	58	Canned fruits	91	Soybean milk products
26	Rice bran oil	59	Danmooji (pickled radish)	92	Mixed soybean pastes
27	Shortening	60	Palm Oil	93	Dried noodles
28	Cottonseed oil	61	Palm Olein Oil	94	Fresh noodles
29	Sesame oil	62	Palm Stearin Oil	95	Precooked noodles
30	Chunjang	63	Palm Kernel Oil	96	Fried noodles
31	Mayonnaise	64	Kimchi	97	Seasoned and boiled agricultural products - Jorim
32	Pan bread	65	Coconut oil	98	Frozen dumpling
33	Starch syrup	66	Dried Soup	99	Frozen croquette

⁶ KATS (<http://kats.go.kr/english/index.asp>) (Accessed: 2010/03/19)

⁷ KATS: Search for Korean Industrial Standards

(http://www.kats.go.kr/english/com/search_ks.asp?OlapCode=ATSU28Search) (Accessed:2010/03/19)

Table 3.3-5 KS standards for processed livestock products

1	Natural cheese
2	Infant formula
3	Follow-up formula
4	Milks
5	Reconstituted milk
6	Flavored milk
7	Milk beverage
8	Condensed milk
9	Goat's milk
10	Dried milk products
11	Butter
12	Ice cream
13	Cheddar cheese
14	Fermented milk
15	Liquid egg
16	Creams
17	Processed cheese
18	Mozzarella cheese
19	Hams
20	Processed hams
21	Sausage
22	Seasoned beef, canned
23	Bacon
24	Seasoned pork, canned
25	Beef, packaged
26	Pork, packaged
27	Meat patty
28	Dried sliced meat
29	Whole and cut – up chicken
30	Chicken stew with ginseng
31	Whole duck and boneless duck meat
32	Seasoned rib meat
33	Gomtang (beef-bone soup)
34	Seasoned and livestock products - Jorim
35	Frozen pork cutlet

Table 3.3-6 KS standards for processed marine products

1	Frozen raw breaded shrimp
2	Oyster, canned
3	Squid, canned
4	Mackerel, canned
5	Mackerel pike, canned
6	Boiled mackerel pike, canned
7	Boiled crab meat, canned
8	Fish sausage
9	Canned tuna in oil
10	Boiled sardine, canned
11	Fish paste
12	Canned fishes
13	Seasoned and roasted laver
14	Seasoned squid
15	Seasoned jeotgal (Fermented and seasoned fishery products)
16	Fermented anchovy sauce
17	Dried sea mustard
18	Bai-Top shell, canned
19	Dried laver
20	Dried anchovy
21	Sea tangle products
22	Seasoned and braised anchovy, canned
23	Salted mackerel
24	Dried seafood tea-bag
25	Seafood patty
26	Frozen fish cutlet
27	Edible sodium alginate
28	Chitosan products
29	Agar-agar

5

Table 3.3-7 KS standards for other foods

1	Soluble saccharin
2	Carbonated soft drinks
3	Blended beverages
4	Extracted beverages
5	Beverage base
6	Chewing gum
7	Edible salts
8	Mono sodium glutamate
9	Baking soda
10	Edible sodium carbonate

6

3.3.3 Contents of Food Standards

In order to compare food standards set by Food Code to KS standard, instant noodles, carbonated soft drinks and prepared frozen foods were evaluated.

Table 3.3-8 Case Study 1 Instant Noodles

	Food Sanitation Act	KS standard
Name of the Standard	Noodles	Instant Noodles*
Scope	Noodle Naengmyeon (cold noodle) Dangmyeon (chinese noodle) Oil-fried noodle Pasta	Fresh(uncooked) noodles (KS H 2506) Pre-cooked noodles (KS H 2507) Fried noodles (KS H 2508) Dried noodles (KS H 2505)
Description	Noodles refer to products made of cereals or starches by heat process or drying. Each items have own their descriptions.	Each items have own their descriptions.
Essential Composition and Quality Factor	Manufacturing and Processing Standards 1) For alcohol-treated products (not less than 1% of alcohol used), alcohol treatment should be performed in a manner that any residual alcohol does not adversely affect the quality. 2) Acid value and peroxide value of oil used for frying shall be not more than 2.5 and 50, respectively.	Dried noodle Max. Moisture content 11% (Dangmyeon 15%) Fried noodle Max. Moisture content 9% Acid value 1.5 Peroxide value 25
Food Additives	1) Tar color : Should not be detected 2) Preservatives : Should not be detected Anything not specified follows “Korea Food Additives Code”	Tar color should not be detected
Hygiene	* Containers/Packing condition * Storage Standard for cold noodle * Microbiological Criteria: 1) The number of Bacteria: Not more than 1,000,000 (Limited to alcohol-treated products) Not more than 100,000 (Limited to pasteurized products) 2) E. coli : Negative (Limited to alcohol-treated	* Containers/Packing condition * Microbiological Criteria: E. coli : Negative Coliform group : Negative The number of Bacteria : 1,000 (only for precooked noodle)

	products) 3) Coliform group : Negative (Limited to pasteurized products)	
Labeling	Specific Labeling Methods required (Nutrition Facts, Pasteurized? Non-pasteurized ? Fried? Alcohol-treated?)	Labeling Standards follow "General Standard of Labeling for Processed Foods" (KS H 1101) Labeling should meet the requirement of Food Sanitation Act.
Methods of Analysis and Sampling	Determination of Acid/Peroxide Value, Tar, Preservatives, Bacteria, E.coli, Coliform	Sensory test (KS H ISO 6658) Determination of Water Content (KS H 1201) Determination of Coliform group (KS H ISO 4832) Determination of Micro-organism (KS H ISO 7251, KSH ISO 4833/4832/4831) Determination of Water and Acid/Peroxide value Anything not specified is handled in accordance with the Food Sanitation Act.

* Standards for instant noodles under KS Standards were deleted as of December 28, 2009 and 4 Standards for fresh noodles, pre-cooked noodles, fried noodles and dried noodles were newly adopted.

* This table does not include basic details required for all foods.

Table 3.3-9 Case Study 2 Carbonate Soft Drinks

	Food Sanitation Act	KS standard
Name of the Standard	Carbonated Beverages	Carbonated Soft Drinks (KS H 2016)
Scope	Carbonated Beverages Carbonated Water	Carbonated Beverages Carbonated Water
Essential Composition and Quality Factor	<p>Pressure of carbonic acid gas (kg/cm²)</p> <p>① Carbonated water : Not less than 1.0</p> <p>② Carbonated beverage : Not less than 0.5</p> <p>Lead (mg/kg) : Not more than 0.3</p> <p>Cadmium (mg/kg) : Not more than 0.1</p> <p>Tin (mg/kg) : Not more than 150 (Limited to canned products)</p>	<p>Must have satisfactory color and flavor Must not have off-taste and off-odor</p> <p>Pressure of carbonic acid gas (kg/cm²)</p> <p>① Carbonated water : Not less than 2.5</p> <p>② Carbonated beverage : Not less than 2.0</p> <p>Lead (mg/kg) : Not more than 0.3</p> <p>Cadmium (mg/kg) : Not more than 0.1</p> <p>Tin (mg/kg) : Not more than 150 (Limited to canned products)</p> <p>Packaging standards : The container shall not be swollen, deformed or rust, requiring complete sealing and appropriate degree of vacuum .</p>
Food Additives	<p>Preservative : Any preservative except the followings should not be detected. (Sorbic acid, Sodium sorbate, Potassium sorbate, Calcium sorbate) Not more than 0.6g/kg as sorbic acid. (But it should not be detected in carbonated water)</p>	
Hygiene	<p>The number of Bacteria : Not more than 100</p> <p>Coliform group : Negative</p>	<p>The number of Bacteria : Not more than 100</p> <p>Coliform group : Negative</p>
Labeling	<p>Specific labeling methods</p> <ol style="list-style-type: none"> 1) Products shall be labeled as either carbonated beverages or carbonated water. 2) If the calorie per 400ml is 2kcal or lower, the product can be labeled as "Diet" . 3) Nutrition Facts required. 	<p>Labeling Standards follow "General Standard of Labeling for Processed Foods" (KS H 1101)</p>

	Food Sanitation Act	KS standard
Methods of Analysis	Gas Pressure Lead and Cadmium Tin The number of Bacteria Coliform group Preservatives	Gas Pressure, Lead and Cadmium Tin, The number of Bacteria, Coliform group General testing methods for canned food (KS H2146) Sensory test (KS H ISO 6658) Determination of Micro-organism (KS H ISO 7251, KSH ISO 4833/4832/4831) Anything not specified is handled in accordance with the Food Sanitation Act.

Table 3.3-10 Case Study 3 Prepared Frozen Foods

	Food Sanitation Act	KS standard
Name of the Standard	Frozen Foods	Frozen Foods
Scope		Frozen dumpling (KS H 4001) Frozen croquette (KS H 4002) Frozen raw breaded shrimp (KS H 4003) Frozen pork cutlet (KS H 4004) Frozen fish cutlet (KS H 6032)
Description	<p>1. Product Definition "Frozen food" means a food made by filling the manufactured, processed, cooked food into container and packaging materials after freezing treatment for the purpose of long-term storage.</p> <p>(1) Frozen food not requiring heating process before consumption : Frozen food that can be consumed without a separate heating process.</p> <p>(2) Frozen food requiring heating process before consumption : Frozen food that can be consumed only after a separate heating process.</p> <p>2. Manufacturing and Processing Standards</p> <p>(1) Product before chilling shall be sterilized in a method, in which the temperature at the center of the product is not less than 63°C for 30 minutes, or the equivalent.</p> <p>(2) Thawing of refrigerated raw material shall be hygienically performed.</p> <p>3. Preservation and Distribution Standards</p> <p>(1) 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.</p> <p>(2) 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.</p> <p>(3) Chilled food shall not be also distributed at room temperature (except fruit/vegetable).</p> <p>(4) Thawed food shall not be again frozen.</p> <p>(5) 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.</p>	Each food items have their own Descriptions and Standards.

	Food Sanitation Act				KS standard					
Food Additives	The products shall meet the requirements of Korea Food Additives Code									
Hygiene		Frozen food not requiring heating before consumption	Frozen food requiring heating before consumption			Frozen dumpling	Frozen croquette	Frozen raw bread shrimp	Frozen pork cutlet	Frozen fish cutlet
			Heated food before freezing	Not-heated food before freezing						
	Bacterial Counts (CFU/g)	Not more than 100,000 (except fermented products or those added with lactic acid bacteria)	Not more than 100,000 (except fermented products or those added with lactic acid bacteria)	Not more than 3,000,000 (except fermented products or those added with lactic acid bacteria)	Bacterial Counts (CFU/g)	Not more than 1,000	—	—	Not more than 3,000,000 (but heated /not-heated food before freezing <100,000)	Not more than 100,000
	Coliform Group (CFU/g)	Not more than 10	Not more than 10	—	Coliform Group (CFU/g)	Not more than 10	—	—	Not more than 10 (only for heated food before freezing)	Negative (only for heated food before freezing)
	E. coli	—	—	Negative	E. coli	—	Negative	—	—	Negative (only for non-heated food before freezing)
Lactic acid bacteria	Not less than labeled count (if only products added with lactic acid bacteria)									

	Food Sanitation Act	KS standard
Labeling	<p>Frozen food shall be labeled according to the following criteria :</p> <p>(1) It shall be labeled as either frozen food good to eat unheated or frozen food to eat after heated.</p> <p>(2) Frozen food to eat after heating shall be additionally labeled as either "food heated before freezing" or "food unheated before freezing" depending on whether it was heat-treated, etc. Fermented products or products containing lactic acid bacteria shall indicate the number of yeasts or lactic acid bacteria.</p> <p>(3) Frozen food shall indicate the methods of storage in freezing conditions and the methods of thawing for cooking.</p> <p>(4) Products that require cooking or heating shall indicate the methods of cooking or heating.</p> <p>(5) The label shall not be done in a manner in which consumers can be misled into thinking the whole of the raw materials is meat or produce. However, this may not apply if the quantity of meat or produce is labeled on the same position as that of the product name.</p> <p>(6) If two or more kinds of meats are used as raw materials, the name of a single kind of meat shall not be used as the product name. However, this may not apply if the quantity of the meat is labeled on the same position as that of the product name.</p>	<p>Labeling Standards follow "General Standard of Labeling for Processed Foods" (KS H 1101)</p>
Methods of Analysis and Sampling	<p>Determination of Bacteria counts, E.coli, Coliform group, Lactic acid bacteria.</p>	<p>Sensory and Physical Examination (KS A 7002)</p> <p>Determination of Water Content (KS H 1201)</p> <p>Determination of Coliform group (KS H ISO 4832)</p> <p>Determination of Micro-organism (KS H ISO 4833)</p> <p>Anything not specified is handled in accordance with the Food Sanitation Act.</p>

3.3.4 Summary

With respect to Korean standards for three selected foods, there were no significant differences between Food Code and KS standards. Restricted use of food additives which is seen in some JAS standards was not seen. Criteria for safety are mainly covered by Food Code while KS standards include more detailed requirements for analytical methods. That is, quality advantage of KS standards is supported by GMP based on rigorous analysis. In term of international harmonization, additional “product standards” as well as "procedure standards" which define analytical methods should be investigated to compare with Japanese and international standards.

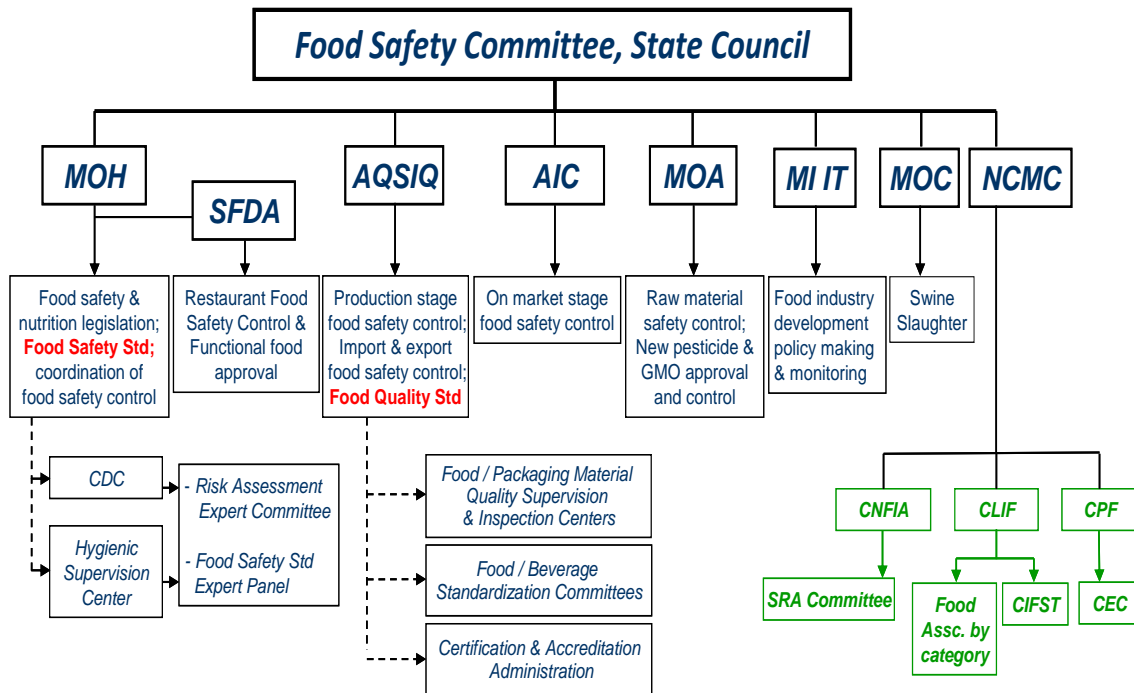
3.4 China

3.4.1 Regulatory Framework on Foods

Framework of food administration in China is stipulated by "Food Safety Law of the People's Republic of China" which was promulgated in February 28, 2009 and went into effect in June 1, 2009.

As there have been various kinds of food standards in China, food companies confused which standard should be complied with. Since Food Safety Law went into effect, it is expected that unification of standards to develop national standard produces drastic improvements. The law comprehensively covers areas from food hygiene to food safety, and clearly stipulates clarification of responsibility of ministries in charge of food issues, newly setting of food recall system, sections responsible for monitoring, control and assessment of risk. State Council decided to set up "Food Safety Committee" according to the law to establish system shown below in Figure 3.4-1 with the purpose of securing food safety and ensuring the public health and safety.

Figure 3.4-1 Food administration system established according to Food Safety Law



Duties of relevant ministries responsible for food standards are stipulated by Food Safety Law as follows.

➤ Ministry of Health (MOH)

It is responsible for overall coordination of food safety, risk assessment, development of food safety standard, release of information on food safety etc.

The lower organizations include Administration of Quality supervision (to set food safety standards and inspection methods in food manufacture and their supervision), The State Administration for Industry and Commerce (to supervise food distribution), and State Food and Drug Administration (to

supervise food service and to approve functional foods)

- Administration of Quality Supervision, Inspection and Quarantine (AQSIQ)
It is responsible for Inspection and Quarantine for Imported and Exported items.
- Ministry of Agriculture (MOA)
It is in charge of setting maximum amount of pesticide residues in foods and residues of veterinary medicinal products, and establishment of analytical methods. It works together with Administration of health for implementation.

3.4.2 Summary of Food Standards in China

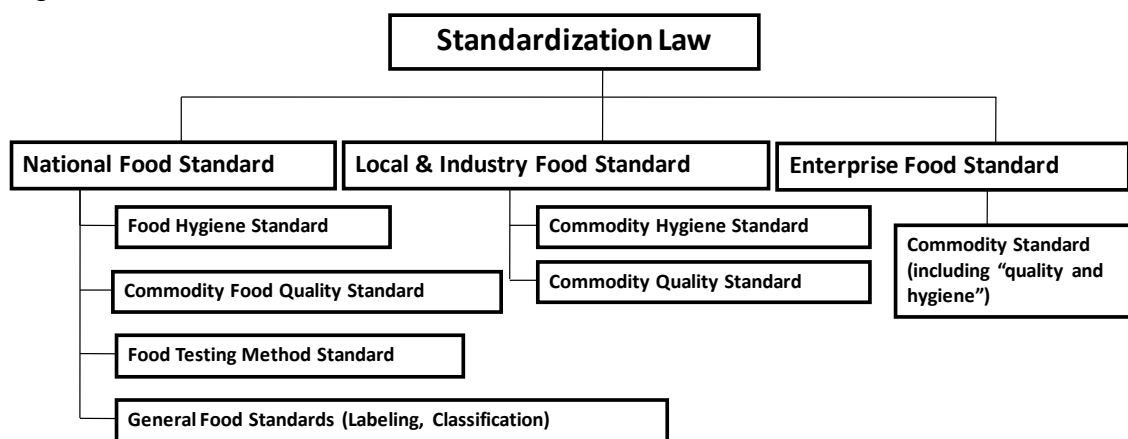
Chinese Food Safety National Standards are mandatory standards established and issued by Health Administration Department of the State Council. National standard code (Guo jia Biao zhun, GB) is provided by Standardization Administration Department of the State Council, and is published after reviewed by Food Safety National Standards Review Board.

National Codes applied to areas other than food are published through the same process by relevant agencies, then, are kept by Standardization Administration of China (SAC). First 2 or 3 alphabets of National Standard Code are common for all industrial areas.

National codes are published as GB (Mandatory standard) or GB/T (Recommended standard). The following code numbers allow you to identify standard. SAC issues list of all National Standards (<http://www.sac.gov.cn/>). Examples of GB standards for foods include GB 2760 "Hygiene standard for use of food additives" and GB 7718 "Labeling standard for packaging containers".

The overall system structure for food standards in China characterizes three levels of standards shown in Figure 3.4-2; National standard, Industry & Local Standard defined as regional standard and industry associations' voluntary standard, and Enterprise Standard. These all standards are expected to be unified as national standards, though, standardization requires more time.

Figure 3.4-2 Three levels of standards in China

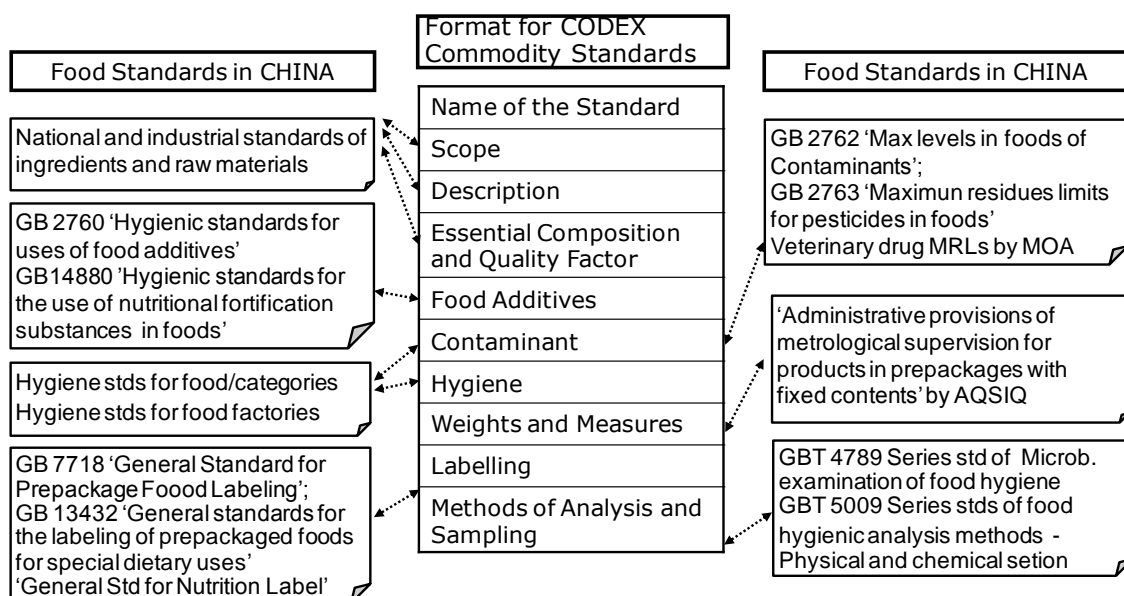


In case of a certain food category defined by National Standard, the Standard should be complied. Penalty provisions against violation are also stipulated clearly. For food without National Standard, Industry & Local Standard is applied. In this case, the health administrative department of each province, autonomous district, or municipalities directly under the Central Government reviews the food standard, confirms it pursuant to National Standard, and submits it to Health Administration of State Council. For food with only Enterprise Standard, each company shall submit the standard to the health administrative department of each province, autonomous region, municipalities directly under the Central Government and complies with it.

Summarizing the above, summary chart of food standards existing in China is presented in Figure 3.4-1 to compare with Codex Standard. For items in Codex Standard, for example, "Scope", "Description" and "Essential Composition and Quality Factor" are defined by corresponding GB standard. GB 2760 (Hygienic standards for uses of food additives) and GB 14880 (Hygienic standards for use of nutritional fortification substances in foods) correspond to "Food Additives", GB 2762 (Max levels in foods of Contaminants) and GB 2763 (Maximum residues limits for pesticides in foods) correspond to "Contaminant". Basically, GB standards almost completely correspond to Codex Standards. For "Weights and Measures", JJF1070 pursuant to Measurement Act like in Japan, and standards set by AQSIQ shall be applied.

For more specific examples, see case studies described in 3.4.3 Commodity Standards. Putting GB standards and other standards into corresponding items of Codex Standards, we can find the consistency level of Chinese standards with Codex Standards is relatively equivalent. The same level may not be seen for all standards, though, it appears that China promote domestic standards from viewpoint of consistency with Codex Standards.

Figure 3.4-3 Summary of Food Standards in China



3.4.3 Commodity Standards

In order to compare consistency between Codex food standards, GB standards and other relevant standards, we investigated for instant noodles, carbonated soft drinks and prepared frozen foods.

3.4.3.1 Case Study 1 : Instant Noodles

Figure 3.4-4 Codex Standards and GB standards (Commodity Standard)

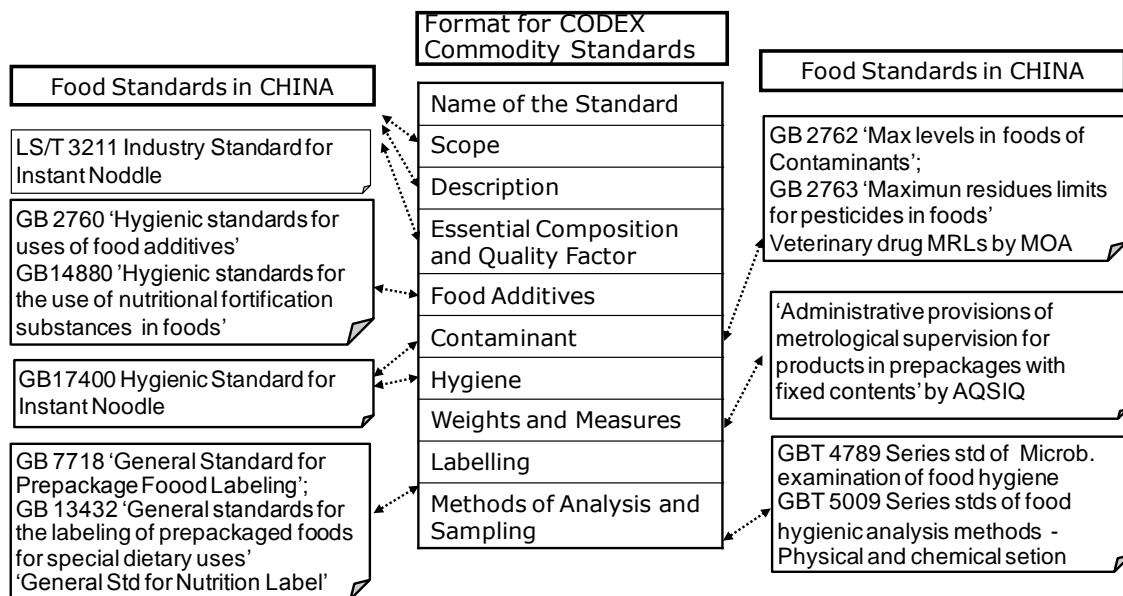


Figure 3.4-1 Case Study 1 Instant Noodles

	Hygienic Standard for Instant Noodle			Industry Standard for Instant Noodle		
Std Code	GB17400-2003			LS/T 3211-1995		
Scope	Fried and non-fried instant noodle.			Fried noodle, hot air dried noodle		
Ingredients	Should meet the requirement of relevant standards and regulation.			* Wheat flour should meet its national std * Fry oil should meet Hygiene std of edible oil frying process * Salt should meet its national standard		
Sensory requir'nt	* sould present its specific color; not burned or raw; could have shade of colour on both side. * Have normal smell; No moldy, rancid or other bad smell * Good in shape and pattern; Not foreign object or burned residue. * No broken, stuck after recovery with water; * No half-cooked and teeth-sticking texture.			* sould present its specific color; not burned or raw; could have shade of colour on both side. * No moldy, rancid or other strande smell and tast. * Good in shape and pattern; Not visible impurity. * No broken, stuck after recovery with water; * No half-cooked and teeth-sticking texture.		
Technical Criteria	\leq	Fried	Non-fried	\leq	Fried	Non-fried
	water (g/100g)	8	12	water, %	8	12
	Acid (Count as fat), KOH/mg/g	1.8		Acid (Count as fat) KOH/mg/g	1.8	
	Peroxide value (count as fat), g/100g	0.25		Peroxide value (count as fat), meq/100g	20	
	Carbonly value (count as fat) (meq/kg)	20		Fat, %	24	
	Pb, mg/kg		0.5	IoD Value		≥ 1.0
	Total As, mg/kg		0.5	NaCl, %		2.5
				Recovery time	4min	6min
			Weight variance	$\leq 3\%$ of declared weight		

	Hygienic Standard for Instant Noodle			Industry Standard for Instant Noodle		
	≤	Fried	Non-fried	≤	Fried	Non-fried
Microbe	Tbc, cfu/g	1 000	50 000	Tbc, count/g	1000	
	Coliform group, MPN/100g	30	150	Coliform group, count/100g	30	
	Pathogen	Absent		Pathogen	Absent	
	Food additive	Meet relevant quality standards and regulation. Applying range and level meet GB2760 'Hygienic standard of food additive use'.			Food additives should meet national and industrial standards.	
Packaging	Packaging vessel and material should meet relevant hygiene standards and regulation			Should meet 'Hygienic standard of food packaging material'		
Labeling	Labeling should meet relevant regulation, and it is required to declare 'Fried' or 'Non-fried'			Should meet GB7718 'General labeling requirement for prepackaged food'		
Test method	Sensory requirement Technical criteria			Test method for each item		

3.4.3.2 Case Study 2 : Carbonate Soft Drinks

Figure 3.4-5 Summary of Food Standards in Carbonate Soft Drinks

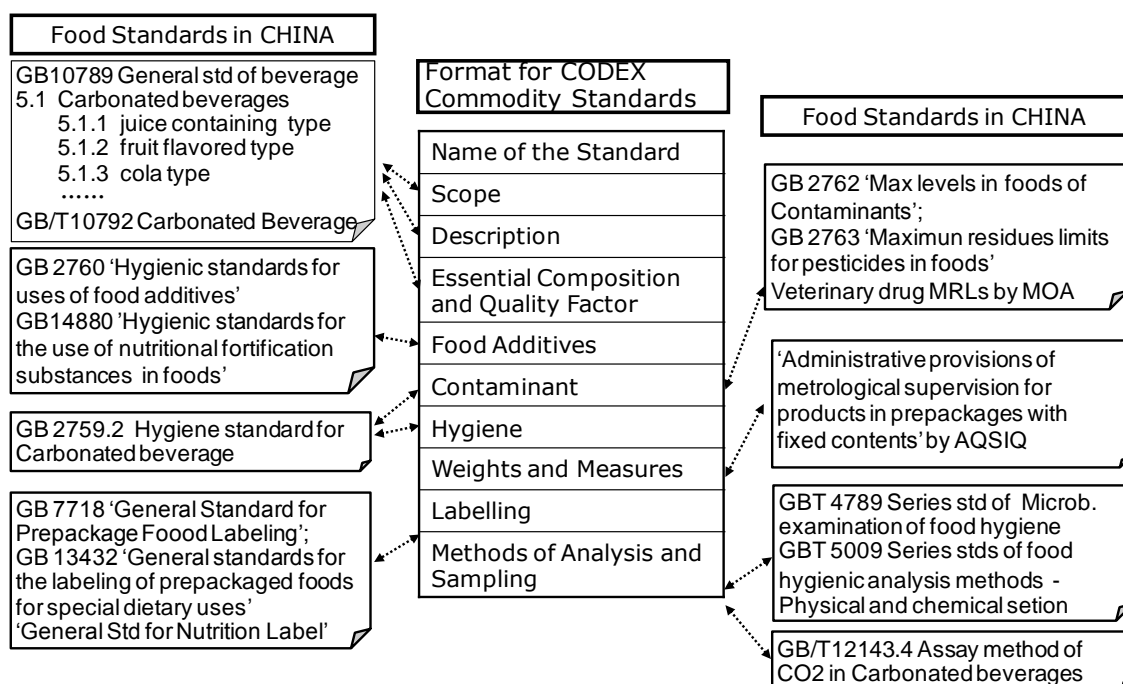


Table 3.4-2 Case Study 2 Carbonate Soft Drinks

Name of the Standard	Carbonated Beverage (Sparkling beverage)	Hygiene Standard of Carbonated Beverage
Scope	Classification; tech requirements; Assay method; Test rules; Labeling; packaging & transport	Limited level; Food additives; Process Hygiene requirement; Packaging; labeling; Storage & transport; test
Description	Beverage charged with external CO ₂ , excluding CO ₂ generated from fermentation .	Beverage charged with external CO ₂ , excluding CO ₂ generated from fermentation .
Essential Composition and Quality Factor	<ul style="list-style-type: none"> ● CO₂ content ≥ 1.5 ● Juice type: juice content ≥ 2.5% 	<ul style="list-style-type: none"> ● Should present the color and taste of main ingredients; without strange taste, bad smell and foreign object. ● Pb ≤ 0.3mg/L, As ≤ 0.3mg/L, Cu ≤ 5mg/L
Food Additives	<ul style="list-style-type: none"> ● GB2760 and GB14880 	<ul style="list-style-type: none"> ● GB2760 for Range and level requirement ● Also meet relative quality standard and regul'n
Contaminant		<ul style="list-style-type: none"> ● GB 2762
Hygiene		<ul style="list-style-type: none"> ● Microbe: Tbc ≤ 100 cfu/100ml, Coliform group ≤ 6 MPN/100ml, Mold count ≤ 10 cfu/100ml, Yeast ≤ 10 cfu/100ml, Pathogen (salmonella, Shigella, Staphylococcus aureus): Absent. ● GB12695 Beverage factory GMP Practice
Weight/Measure		
Labelling	<ul style="list-style-type: none"> ● GB7718 and GB13432. ● Juice type should declare juice content. 	
Methods of Analysis	<ul style="list-style-type: none"> ● CO₂ content test: <ol style="list-style-type: none"> 1) Reductor method; 2) Distilling titration 	<ul style="list-style-type: none"> ● Pb: To be tested as GB/T 5009.12 ● Total As: To be tested as GB/T 5009.11 ● Cu: To be tested as GB/T 5009.13 ● Micorbe: To be tested as GB/T 4789.21

3.4.3.3 Case Study 3 Prepared Frozen Foods

Figure 3.4-6 Summary of Food Standards in Prepared Frozen Foods

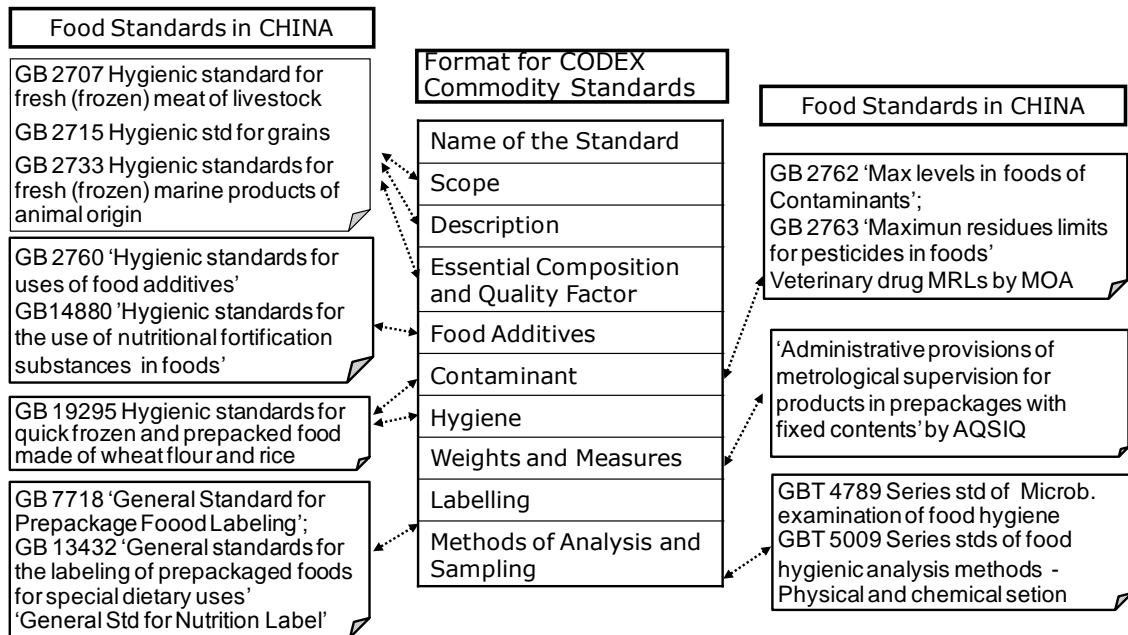


Figure 3.4-3 Case Study 3 Prepared Frozen Foods

Name of Standard	Contaminant and Physical/Chemical Index (\leq)										
	Pb mg/kg	Cd mg/kg	Al mg/kg	Me Hg mg/kg	Tot. Hg mg/kg	Inor. As mg/kg	Tot. As mg/kg	Acid value KOH,mg/g	Perox. Val. g/100g	volatile basic N mg/100g	Aflatoxin μ g/kg
GB19295 Hygienic std for quick-frozen and pre-packed food made of wheat & rice	0.5	--	--	--	--	--	0.5	3	0.15	15	5
GB 2715 Hygienic standards for grains	0.2	0.2 (rice/bean) 0.1 (wheat/corn /other)	--	--	0.02	0.15 (rice) 0.1 (wheat) 0.2 (other)	--	--	--	--	20(Corn) 10(Rice) 5(Other)
GB 2733 Hygienic std for fresh(frozen) marine products of animal origin	0.5 (Fish)	0.1 (Fish)	--	1.0 (Carnivore fish) 0.5(other)	--	0.1(fish) 0.5(other)	--	--	--	10--30	--
GB 2707 Hygienic standards for fresh(frozen) meat of livestock	0.2	0.1	--	--	0.05	0.05	--	--	--	15	--
GB16869 Fresh and frozen poultry product	0.2	0.5	--	--	0.05	--	--	--	--	15	--
DB11/615 Hygienic requirement of quick-frozen meat products	0.2	0.1	--	--	0.05	0.05	--	--	--	10	--
NYT1407 Green food-quick-frozen and pre-packed food made of wheat flour or rice	0.2	0.2	25	0.5 (含肉)	0.05 (含肉) 0.02 (无肉)	0.05	--	3(含馅)	0.15(含馅)	15(含肉)	5

Name of Standard	Microbiological Index(≤)							Storage temperature
	Tot. plate count (fresh) cfu/g	Tot. plate count (cooked) cfu/g	Colif.(fresh) MPN/100g	Colif. (cooked) MPN/100g	Mold count (fresh)	Mold count (cooked)	Microbe Pathogen	
GB19295 Hygienic std for quick-frozen and pre-packed food made of wheat & rice	3000000	100000	--	230	-	50	Not detected	-18°C±2°C
GB 2715 Hygienic standards for grains	--	--	--	--	--	--	--	--
GB 2733 Hygienic std for fresh(frozen) marine products of animal origin	--	--	--	--	--	--	--	-15°C to -18°C
GB 2707 Hygienic standards for fresh(frozen) meat of livestock	--	--	--	--	--	--	--	--
GB16869 Fresh and frozen poultry product	1000000	500000 (Frozen)	10000	5000 (Frozen)	--	--	0/25g (Salmonella) 0/25g (O157:H7)	-18°C±1°C
DB11/615 Hygienic requirement of quick-frozen meat products	500000(Total plate count)		5000(Coliform group)		--	--	Not detected	-18°C±2°C
NYT1407 Green food-quick-frozen and pre-packed food made of wheat flour or rice	3000000	100000	--	230	--	50	Not detected	-18°C±2°C

3.4.3 Summary

In this project, we compared Chinese GB standards with Codex Standards for instant noodles, carbonated drinks and prepared frozen foods taken in case studies. Based on the results, relatively good consistency was shown. As it has not been long since Food Safety Law went into effect, it is likely to exit legal gray areas in China where standardization has just started. We need to focus on future trends toward standardization. As we couldn't investigate in depth National Standards in this project, this remains as a big issue in the future. In addition, information on food standards, which is important to grasp law system of food standards, was just collected from confirmation on the web site of Standardization Administration of China. Moreover, English versions of the standard titles were prepared, while there was no information on the content other than in Chinese. Some measures should be taken to resolve these problems.

3.5 Southeast Asia (Malaysia, Singapore and Philippines)

3.5.1 Malaysia

3.5.1.1 Food Administration

Main administrative bodies responsible for food safety and hygiene control in Malaysia are Ministry of Agriculture and Agro-Based Industry and Ministry of Health. Their main roles are shown in Table 3.5-1.

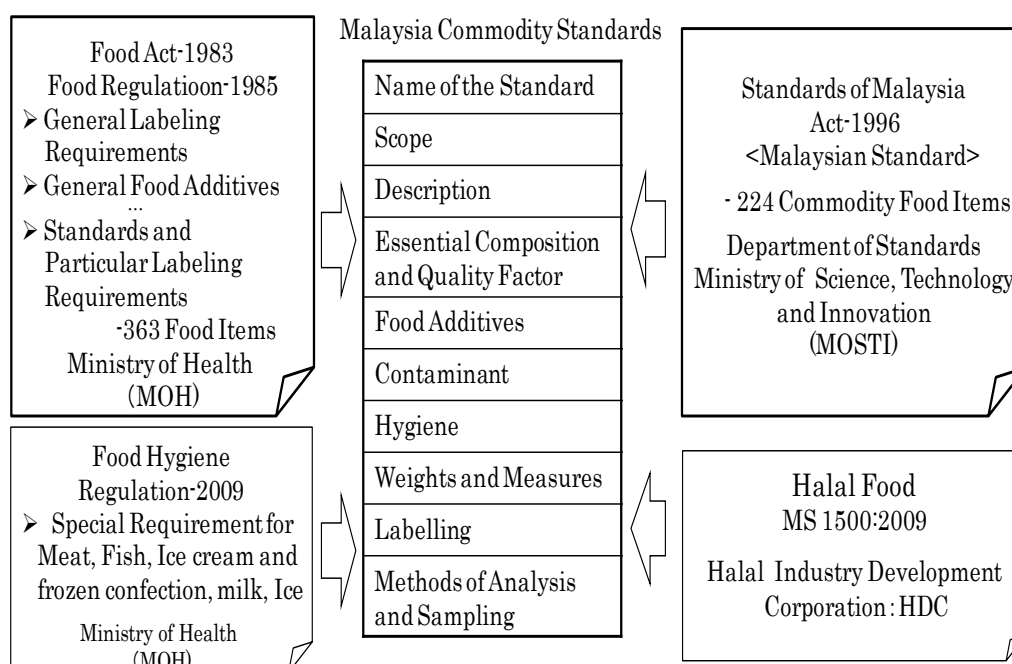
Table 3.5-1

	Safety and hygiene control for production and primary processing	Safety and hygiene control for processed foods
	Ministry of Agriculture and Agro-Based Industry (MOA)	Ministry of Health (MOH)
Agricultural products	Department of Agriculture (DOA)	Food Safety and Quality Division (FSQD)
Marine Products	Fisheries Department (DOF)	
Livestock products	Department of Veterinary services (DVS)	

3.5.1.2 Acts and Regulations related to Commodity Standards

Major acts and regulations related to Commodity Standards are presented in Figure 3.5-1.

Figure 3.5-1



3.5.1.3 Food Act (jurisdiction : MOH)

(1) Food Act- 1983¹

The Food Act is a key law in food administration. It was enforced to protect the public against health hazards and fraud in the preparation, sale and use of foods. The Act stipulates permissible range in the preparation, sale and use of foods. It gives legal authority to relevant agencies to carry out their duties in implementing the Act. Such legal authority includes the power of the Minister of Health to stipulate the supplementary provisions compiled as Food Regulations-1985.

(2) Food Regulations-1985²

Supplementary provisions are compiled in Food Regulation-1985. Food Regulation-1985 is continuously updated on amendment and newly setting of regulations. Food Regulation-1985 provides requirements for labeling, food additives and supplement, packaging, contaminants, bacterial toxin etc., and Standards and Particular Labeling Requirements for 363 food items (Table 3.5-2). It stipulated minimum definition, component standard and special labeling requirements.

(3) Food Hygiene Regulations-2009

Food Hygiene Regulation-2009³ regulates hygienic requirements against those who handle foods, as well as the conduct and maintenance of food premises. A food premise is defined in the Regulation as a place "used for or in connection with the preparation, preservation, packaging, storage, conveyance, distribution or sale of any food, or the relabeling, reprocessing or reconditioning of any food". The Regulation sets Special Requirements for Meat, Fish, Ice cream, and Frozen confection, Milk, and Ice in handling, preparation, packaging, supply, storage and sale. For vending machine, same special regulation is stipulated.

3.5.1.4 Malaysian Standards

As commodity standards, Malaysian Standards (MS) stipulated by Ministry of Science, Technology and Innovation (MOSTI) occupies important place in food regulations.

¹ <http://fsis2.moh.gov.my/fosimv2/HOM/frmHOMFARSec.aspx?id=22>

² <http://fsis2.moh.gov.my/fosimv2/HOM/frmHOMFARSec.aspx?id=21>

³ http://fsq.moh.gov.my/uploads/Food_Hygiene_Regulations_2009.pdf

Table 3.5-2 Commodity Standard in Food Regulations-1985

Cereal, Cereal Product, Starch and Bread		77	Malt Extract
42	Flour	78	Bakers' Malt Extract, Commercial Malt Extract, or Bakers' Maltose
43	Wheat Flour	Food Aerating Substance	
44	Chlorinated Wheat Flour	79	Cream of Tartar
45	Gluten Wheat Flour	80	Acid Phosphate
46	Protein-Increased Wheat Flour	81	Baking Powder
47	Self-Raising Wheat Flour	Milk and Milk Product	
48	Whole meal Wheat Flour	82	Milk, Raw Milk or Fresh Milk
49	Rice	83	Milk Product
50	Milled Rice	84	Skimmed Milk, Skim Milk, Non-Fat Milk or Separated Milk
51	Rice Flour or Ground Rice	85	Pasteurized Milk
52	Glutinous Rice	86	Sterilized Milk
53	Glutinous Rice Flour	87	Ultra High Temperature Milk or U.H.T Milk
54	Tapioca or Cassava	88	Reference to Milk as Food
55	Tapioca Flour or Tapioca Starch	89	Flavoured Milk
56	Sago	90	Full Cream Milk Powder or Dried Full Cream Milk
57	Sago Flour	91	Skimmed Milk Powder, Skim Milk Powder, Dried Non-Fat Milk Solids or Separated Milk Powder
58	Corn Flour or Corn Starch	91A	Malted Milk Powder.
59	Custard Powder	92	Recombined Milk
60	Meal	93	Reconstituted Milk
61	Wheat Germ Meal or Wheat Germ	94	Evaporated Milk or Unsweetened Condensed Milk
62	Oatmeal	95	Condensed Milk or Sweetened Condensed Milk
63	Pasta	96	Lactose Hydrolysed Milk
64	Prepared Cereal Food	97	Filled Milk
65	Bread	97A	Filled Milk Powder.
66	White Bread	98	Evaporated Filled Milk or Unsweetened Condensed Filled Milk
67	[Deleted by P.U.(A) 162/88]	99	Condensed Filled Milk or Sweetened Condensed Filled Milk
68	Fruit Bread	100	Cream or Raw Cream
69	Milk Bread	101	Pasteurized Cream
70	Meal Bread	102	Reduced Cream or Pouring Cream
71	[Deleted by P. U. (A) 162/88]	103	Butter
72	Rye Bread	104	Recombined Butter
73	Wheat-Germ Bread	105	Ghee
74	Wholemeal Bread	106	Cheese
75	Enriched Bread	107	Cottage Cheese
Malt and Malt Extract			
76	Malt		

108	Cream Cheese
109	Processed Cheese
110	Cheese Paste, Cheese Spread or Cheese Mixture
111	Club Cheese or Luncheon Cheese
112	Dried Cheese or Powdered Cheese
113	Cultured Milk or Fermented Milk
114	[Deleted by P.U.(A) 162/88]
115	[Deleted by P.U.(A) 162/88]
116	Ice Cream
117	Particular Labelling Requirements of Milk and Milk Product
Sweetening Substance	
118	Sugar
118A	Stevia Extract
118B	Enzymatically Modified Stevia
119	Soft Brown Sugar
120	Coloured Sugar or Rainbow Sugar
121	Dextrose Anhydrous
122	Dextrose Monohydrates
123	Refiner's Syrup
124	Glucose
125	Glucose
126	Gula Melaka
127	Gula Kabong
128	Fructose
129	High Fructose Glucose Syrup
130	Honey
131	Icing Sugar
132	Molasses
132A	Artificial Sweetener
133	Non-nutritive Sweetening Substance
134	Aspartame, Glycerol and Sorbitol
134A	Beverage Whitener
134B	Sweetened Creamer
134C	Non Dairy Creamer
Confection	
135	Flour Confection
136	Sugar Confection
137	Frozen Confection

138	Ice Confection
139	Table Confection
140	Particular Labelling Requirement of Confection
Meat and Meat Product	
141	Meat or Fresh Meat
142	Chilled Meat
143	Frozen Meat
144	Minced Meat
145	Meat Product
146	Meat Paste
147	Manufactured Meat
148	Smoked Meat
149	Canned Meat
150	[Repealed by P.U. (A) 162/88]
151	Canned Meat With Other Food
152	Meat Extract or Meat Essence
153	Edible Gelatin
154	Meat or Meat Product Shall Not Contain Oestrogen Residue
155	Particular Labelling Requirement of Meat and Meat Product
Fish and Fish Product	
156	Fish
157	Fish Product
158	Cured, Pickled or Salted Fish
159	Smoked Fish
160	Prepared Fish
161	Canned Fish
162	Fish Paste
163	Belacan
164	Fish Sauce
165	[Repealed by P.U. (A) 162/88]
166	Cinca lok
166A	Oyster Sauce
166B	Oyster Flavoured Sauce
167	Fish Ball or Fish Cake
168	Fish Keropok
169	Otak Udang, Petis or Heko
170	Pekasam
Egg and Egg Product	

171	Egg
172	Liquid Egg
173	Liquid Egg Yolk
174	Liquid Egg White
175	Dried Egg, Dried Egg Yolk or Dried Egg White
176	Reference to Egg as Food or as Ingredient in Food
177	Preserved Egg
178	Particular Labelling Requirement of Egg
Edible Fat and Edible Oil	
179	General Standard for Edible Fat and Edible Oil
180	Dripping
181	Suet
182	Lard
183	Refined, Bleached, Deodorized Palm Stearin
184	Neutralized, Bleached, Deodorized Palm Stearin
185	Margarine
186	Fat Spread
187	Vanaspati
188	General Standard for Edible Oil
189	Cooking Oil
190	Refined Coconut Oil
191	Unrefined Coconut Oil
192	Corn Oil
193	Cottonseed Oil
194	Groundnut Oil, Peanut Oil or Arachis Oil
195	Mustardseed Oil
196	Refined, Bleached, Deodorized, Palm Oil
197	Neutralized, Bleached, Deodorized Palm Oil
198	Refined, Bleached, Deodorized Palm Olein
199	Neutralised, Bleached, Deodorized Palm Olein
200	Refined, Bleached, Deodorized Palm Kernel Oil
201	Olive Oil
202	Rice Bran Oil
203	Rapeseed Oil of Toria Oil
204	Safflowerseed Oil
205	Sesameseed Oil or Gingelly Oil
206	Soya Bean Oil
207	Sunflower Seed Oil

208	Particular Labelling Requirement of Edible Fat and Edible Oil
Vegetable and Vegetable Product	
209	Vegetable
210	Fresh Vegetable
211	Dried or Dehydrated Vegetable
212	Frozen Vegetable
213	Vegetable Product
214	Salted Vegetable
215	Dried Salted Vegetable
216	Tomato Paste
217	Tomato Pulp
218	Tomato Puree
219	Vegetable Juice
220	Canned Vegetable
221	Fermented Soya Bean Product
222	Hydrolysed Vegetable Protein or Hydrolysed Plant Protein
Soup and Soup Stock	
223	Soup
224	Soup Stock
Fruit and Fruit Product	
225	Raw Fruit or Fresh Fruit
226	Dried Fruit
227	Mixed Dried Fruit
228	Fruit Product
229	Candied Fruit or Glaced Fruit or Crystallized Fruit
230	Salted Fruit
231	Dried Salted Fruit
232	Candied Peel
233	Canned Fruit
234	Canned Fruit Cocktail
235	Fruit Juice
236	Apple Juice
237	Grapefruit Juice
238	Lemon Juice
239	Lime Juice
240	Orange Juice
241	Passion Fruit Juice
242	Pineapple Juice

243	Particular Labelling Requirement of Fruit Juice
243A	Fruit Nectar
244	Fruit Pulp
245	Fruit Puree or Fruit Paste
Jam, Fruit Jelly, Marmalade and Seri Kaya	
246	Jam
247	Fruit Jelly
248	Marmalade
249	Seri Kaya
250	Pectin
251	Jam Setting Compound
Nut and Nut Product	
252	Nut
253	Coconut Milk
254	Coconut Cream
255	Coconut Cream Powder
256	Desiccated Coconut
257	[Repealed by P.U. (A) 162/88]
258	Coconut Paste
259	Peanut Butter
Tea, Coffee, Chicory and Related Product	
260	Tea
261	Tea Dust, Tea Fanning or Tea Sifting
262	Tea Extract, Instant Tea or Soluble Tea
263	Scented Tea
263A	Tea Mix
264	Particular Labelling Requirement of Tea
265	Coffee Bean
266	Coffee or Ground Coffee or Coffee Powder
267	Instant Coffee or Soluble Coffee
267A	Decaffeinated Coffee
268	Coffee Essence or Liquid Coffee Extract
269	Coffee Mixture
269A	Premix Coffee
270	Chicory
271	Coffee and Chicory
272	Instant Coffee and Chicory or Soluble Coffee and Chicory Extract

273	Coffee and Chicory Essence or Liquid Coffee and Chicory Extract
Cocoa and Cocoa Product	
274	Cocoa Bean
275	Cocoa Nib or Cracked Cocoa
276	Cocoa Paste, Cocoa Mass, Cocoa Slab or Cocoa Liquor
277	Cocoa Butter
278	Cocoa and Cocoa Powder or Soluble Cocoa
279	Chocolate
280	White Chocolate
281	Milk Chocolate
Milk Shake	
282	Milk Shake
Salt and Spice	
283	Salt
284	Table Salt
285	Iodised Table Salt or Iodised Salt
286	Spice
287	Aniseed
287A	Aniseed Powder
288	Caraway Seed
289	Caraway Powder
290	Cardomom
291	Cardamom Seed
292	Cardamom Powder
293	Cardamom Amomum
294	Cardamom Amomum Seed
295	Cardamom Amomum Powder
296	Celery Seed
297	Chilli
298	Chilli Powder
299	Chilli Slurry
300	Cinnamon
301	Cinnamon Powder
302	Cloves
303	Cloves Powder
304	Coriander
305	Coriander Powder
306	Cumin

307	Cumin Powder
308	Cumin Black
309	Cumin Black Powder
310	Dill Seed
311	Fennel
312	Fennel Powder
313	Fenugreek
314	Fenugreek Powder
315	Ginger
316	Ginger Powder
317	Mace
318	Mace Powder
319	Mustard
320	Mustard Powder
321	Nutmeg
322	Nutmeg Powder
323	Black Pepper
324	Black Pepper Powder
325	White Pepper
326	White Pepper Powder
327	Mixed Pepper Powder
328	Pimento
329	Saffron
330	Star Anise
331	Tumeric
332	Tumeric Powder
332A	Blended Tumeric Powder
333	Mixed Spice
333A	Curry Powder
Vinegar, Sauce, Chutney and Pickle	
334	Vinegar
335	Distilled Vinegar
336	Blended Vinegar
337	Artificial Vinegar or Synthetic Vinegar
338	Particular Labelling Requirement of Vinegar
339	Sauce
340	Soya Sauce or Soya Bean Sauce or Kicap
341	Hydrolysed Vegetable Protein Sauce or Hydrolysed Plant Protein Sauce

341A	Blended Hydrolysed Vegetable Protein Sauce or Blended Hydrolysed Plant Protein Sauce
342	Chilli Sauce
343	Tomato Sauce or Tomato Ketchup or Tomato Catsup
344	Salad Dressing
345	Mayonnaise
346	Chutney
347	Pickle
Soft Drink	
348	General Standard for Soft Drink
349	Syrup
350	Fruit Syrup, Fruit Cordial or Fruit Squash
351	Flavoured Syrup or Flavoured Cordial
352	FruitJuice Drink
353	Fruit Drink
354	Flavoured Drink
355	Soft Drink Base or Soft Drink Premix
356	Botanical Beverage Mix
357	Soya Bean Milk
358	Soya Bean Drink
359	[Repealed by P.U. (A) 162/88]
360	Particular Labelling Requirement of Soft Drink
Natural Mineral water	
360A	Natural Mineral Water
Packaged Drinking water	
360B	Packaged Drinking Water
Alcoholic Beverage	
361	General Standard for Alcoholic Beverage
362	Wine
363	Wine Cocktail, Vermouth or Wine Aperitif
364	Aerated Wine
365	Dry Wine
366	Sweet Wine
367	Fruit Wine
368	Apple Wine
369	Cider
370	Pear Wine
371	Perry

372	Vegetable Wine
373	Honey Wine or Mead
374	Beer, Lager, Ale or Stout
375	Rice Wine
376	Toddy
377	Spirit
378	Brandy
379	Fruit Brandy
380	Rum
381	Whisky
382	Vodka
383	Gin
384	Samsu
385	Particular Labelling Requirement of Spirit
386	Liqueur

Shandy	
387	Shandy
Special Purpose Food	
388	Special Purpose Food
389	Infant Formula
389A	Follow-up Formula
390	Canned Food for Infants and Children
391	Cereal-Based Food for Infants and Children
392	Low Energy Food
393	Formula Dietary Food
393A	Special Dietary Foods With Low Sodium Content Including Salt Substitute

To note: Missing sequential regulation numbers are due to intentional deletion of the regulation from the Food Regulations.

They are national standards for all industries pursuant to ISO, but are basically voluntary standards.

Malaysian Standards shown in Table 3.5-3 are in the same format for the Codex Commodity Standards.

Approximately 6000 Malaysian Standards are issued. As of March, 2010, there are 454 Malaysian Standards issued in International Classification of Standards (ICS) code 67 (Food technology). Of them, 224 Malaysian Standards are related to Specifications (Table 3.5-4). These are basically voluntary standards and a certified mark can be labeled by obtaining official certification.

Table 3.5-3 Format of Malaysian Standard

MALAYSIAN STANDARD MS 526:2009 ICS: 67.060, 180.20 Instant Wheat Noodles – Specification (Second Revision)	
Contents	
1 Scope	Table 1 Requirements for instant wheat noodles (fried and non-fried, excluding seasonings) . Annex A Determination of moisture content Annex B Determination of cooking or soaking time Annex C Determination of protein content Annex D Determination of acid value
2 Normative references	
3 Definitions	
4 Minimum requirements	
5 Packaging and labelling	
6 Hygiene	
7 Sampling	
8 Testing	
9 Compliance	
10 Legal requirements	

Recently, standardization of Malaysian Standards for agricultural products including fresh vegetables and fruits are proceeding as a national policy. As of end of February 2010, 30 items (Table 3.5-4) are registered as mandatory

standards referred by administrative authority.

Table 3.5-4 Specifications in MS

MS No.	Title
85:2010	Edible Wheat Flour - Specification (Third Revision)
513:2009	Caramel in The Manufacture of Soy Sauce - Specification (Second Revision)
742:2009	Prawns/Shrimps Canned in Brine - Specification (First Revision)
2255:2009	Dried Wheat Noodles - Specification
2254:2009	Wet and Raw Wheat Noodles - Specification
526:2009	Instant Wheat Noodles - Specification (Second Revision)
1252:2009*	Fresh French Beans - Specification (First Revision)
2249:2009	Fresh Baby Corn - Specification
997:2009	Canned Baked Beans in Tomato Sauce - Specification (First Revision)
ISO 6574:2008	Celery Seed (Apium Graveolens Linnaeus) - Specification (Iso 6574:1986, Idt)
ISO 10621:2008	Dehydrated Green Pepper (Piper Nigrum L.) - Specification (Iso 10621:1997, Idt)
1118:2008	Malaysian Cocoa Butter - Specification (First Revision)
ISO 11162:2008	Peppercorns (Piper Nigrum L.) in Brine - Specification and Test Methods (Iso 11162:2001, Idt)
ISO 11163:2008	Dried Sweet Basil (Ocimum Basilicum L.) - Specification (Iso 11163:1995, Idt)
1323:2008 *	Fresh Mustards - Specification (First Revision)
1376:2008	Malaysian Cocoa Mass - Specification (First Revision)
1229:2008	Fresh Sweet Corn - Specification (First Revision)
2202:2008	Fresh Pummelo - Specification
2201:2008	Fresh Pitahaya - Specification
1798:2008	Milk and Milk Products - Specification of Mojonner-Type Fat Extraction Flasks (Iso 3889:2006, Mod)
1284:2008	Soft, Light and Dark Brown Sugar - Specification (First Revision)
1994:2007	Fresh 'Cavendish' Banana — Specification
1995:2007	Fresh Rambutan – Specification
ISO 882-1:2007	Cardamom [Elettaria Cardamomum (Linnaeus) Maton Var. Minuscula Burkill] - Specification - Part 1: Whole Capsules (Iso 882-1:1993, Idt)
ISO 882-2:2007	Cardamom [Elettaria Cardamomum (Linnaeus) Maton Var. Minuscula Burkill] - Specification - Part 2: Seeds (Iso 882-2:1993, Idt)
597:2007	Beer – Specification (First Revision)
2054:2007	Coriander (Coriandrum Sativum L.), Whole or Ground (Powdered) - Specification (Iso 2255:1996, Mod)
2055:2007	Fennel Seed, Whole or Ground (Powdered) – Part 1: Bitter Fennel Seed (Foeniculum Vulgare P. Miller Var. Vulgare) – Specification (Iso 7927-1:1987, Mod)
2056:2007	Fenugreek, Whole or Ground (Powdered) – Specification (Iso 6575:1982, Mod)
2062:2007	Aniseed (Pimpinella Anisum Linnaeus) - Specification (Iso 7386:1984, Mod)
815:2007 *	Palm Stearin - Specification (Second Revision)

2042:2007	Salty Soy Sauce – Specification
2043:2007	Virgin Coconut Oil – Specification
545:2007	Fresh, Chilled and Frozen Beef –Specification (First Revision)
ISO 11178:2007	Star Anise (Illicium Verum Hook. F.) - Specification (Iso 11178:1995, Idt)
814:2007 *	Palm Oil - Specification (Second Revision)
816:2007 *	Palm Olein - Specification (Second Revision)
1148:2007	Fine Granulated Sugar and Castorsugar – Specification(First Revision)
1980:2007	Flavoured Milk – Specification
236:2007	Palm Kernels - Specification (Second Revision)
894:2005 *	Fresh Chillies - Specification (First Revision)
1875:2006	Groundnuts (Peanuts) - Specification
1783:2005	Edible Ice in Food Processing and Food Services - Specification
1028:2005 *	Fresh Watermelon - Specification (First Revision)
234:2005	Black and White Pepper, Whole - Specification (Second Revision)
293:2005	Cocoa Beans – Specification for Grading (Fourth Revision)
1819:2005	Chocolate Flavoured Confections - Specification
1306:2005 *	Fresh Ginger - Specification
779:2005	Margarine - Specification(Second Revision)
883:2005	Vanaspati/Compound Vegetable Fat - Specification(First Revision)

4:2005	White Refined Sugar for General Use – Specification (Third Revision)
1283:2005	Oyster Flavoured Sauce -Specification (First Revision)
1310:2005	Oyster Sauce – Specification
807:2005	Light Soy Sauce - Specification
1264:2005	Dark (Thick) Soy Sauce - Specification (First Revision)
1234:2005	Vegetable Shortening - Specification
1820:2005	Fresh Sekaki Papaya - Specification
1859:2005	Fresh Chokanan Mango - Specification
82:2005	White Refined Sugar for Industrial Use – Specification (Third Revision)
892:2004 *	Spesifikasi Bagi Kobis Bulat
713:2004	Seri Kaya – Specification
1762:2004	Palm Superolein - Specification
1102:2003	Specification for Black and White Pepper, Ground
682:2004	Cooking Oils - Specification
1000:2003	Specification for Soya Bean Milk and Drink (First Revision)
85 : 2003	Specification for Edible Wheat Flour(Second Revision)
1715 : 2003	Specification for Chocolate and Chocolate Products
1126:2003	Meat Burgers - Specification (First Revision)
1145:2003 *	Specification for Fresh Eksotika Papaya
956 : 2003 *	Spesifikasi Bagi Timun
893:2003 *	Spesifikasi Bagi Tomato
951:2003 *	Spesifikasi Bagi Kacang Panjang
1125:2003	Meat Frankfurters – Specification
302:2003	Specification for Canned Pineapple (First Revision)

1001:2002	Specification for Dried Chillies in Ground (Powdered) Form
361:2002	Specification for Fresh, Chilled and Frozen Poultry (First Revision)
1127:2002 *	Specification for Fresh Carambola (Second Revision)(Codex Stan 187-1993, Neq)
871 : 2001	Specification for Malaysian Cocoa Powder
1041:2001	Specification for Fresh Pineapple (First Revision)
1507:2001	Specification for Refined Palm Glycerine
714:2001	Specification for Packaged Pineapple Juice (First Revision)
531:2001	Specification for Tomato Sauce (Ketchup) (Second Revision)
889 : 2001	Specification for Turmeric, Whole and Ground(First Revision)
543 : 2001	Specification for The Production of Vegetable Seeds
1516:2001	Specification for Vinegar
295:1999	Specification for Tea
476:1998	Specification for Cream-Crackers (First Revision)
1434:1998	Specification for Semi-Sweet Biscuits and Cookies
6:1998	Specification for Dried Crackers (Keropok Kering) from Freshwater and Marine Fish, Crustacea and Molluscan Shellfish (First Revision)
898 : 1998	Specification for Dry-Salted Anchovies (Ikan Bilis) (Second Revision)
1437:1998	Specification for Palm Kernel Stearin
241:1998	Specification for Bread
84 : 1998	Specification and Grades for Paddy (First Revision)
6:1998	Specification for Quick-Frozen, Raw and Cooked Shrimps or Prawns (Second Revision)

1436:1998	Specification for Palm Kernel Olein
600:1998	Specification for Cordials, Squashes and Syrups
225 : 1997	Specification for Grading of Milled Rice
83:1997	Specification and Methods of Test for Sugarcane Final Molasses(Second Revision)
1393:1996 *	Specification for Fresh Chinese Cabbage (Head Type)
1124:1996 *	Specification for Fresh Sweet Pepper (Bell Pepper)
532:1995	Specification for Red Chilli Sauce (Second Revision)
890 : 1995	Specification for Curry Powder (First Revision)
1374:1995	Specification for Fresh, Chilled and Frozen Rabbit Meat
1381:1995	Specification for Desiccated Coconut
410:1995	Specification for Pasteurized and Pasteurized, Homogenized Full-Cream and Low-Fat Milk (Second Revision)
1376:1995	Specification for Cocoa Mass
1373:1995	Specification for Serunding Daging (Spicy Shredded Meat)
1372:1995	Specification for Satay Sauce
1282: PART 8:1995	Specification for Food Additives Part 8 : Colouring Substance
680 : 1995	Specification for Fresh Chicken Eggs
1057 : 1995	Specification for Adjustable Louvre Windows
779:1994	Specification for Margarine (First Revision)
1362:1994 *	Specification for Fresh Spinach
1361:1994 *	Specification for Fresh Head Lettuce
1282: PART 7:1994	Specification for Food Additives Part 7 : Anticaking Agents

1282: PART 6:1994	Specification for Food Additives Part 6: Solvents
1356:1994	Specification for Rice Flour(Non-Glutinous) and Blended Rice Flour
1357:1994	Specification for Sago Pearl
156 : 1994	Specification for Tapioca Pearl
155:1994	Specification for Industrial Tapioca Starch (First Revision)
1351:1994	Specification for Coconut Cream Powder
1282: PART 5:1994	Specification for Food Additives Part 5 : Stabilizers, Thickeners and Gelling Agents
154:1994	Specification for Edible Tapioca Starch (First Revision)
468:1994	Specification for Industrial Sago Starch (First Revision)
601:1994	Specification for Ready-to-Drink Beverages(Carbonated and Non Carbonated)(First Revision)
1325:1993 *	Specification for Fresh Muskmelon (Tembikai Wangi)
1282: PART 3:1993	Specification for Food Additives Part 3 : Antioxidants
1309:1993	Specification for Nutmeg (Whole or Broken)
1324:1993 *	Specification for Fresh Kale (Kailan)
469 : 1993	Specification for Rice (Oryza Sativa) Seed for Planting
467 : 1993	Specification for Cocoa (Theobroma Cacao) Seeds for Planting
598:1993	Specification for Ice-Cream
1308:1993	Specification for Mace (Whole, in Pieces or Ground)
513:1993	Specification for Caramel in The Manufacture of Soya Sauce (First Revision)
599:1993	Specification for Full Cream Milk Powder (First Revision)

1282: PART 4:1993	Specification for Food Additives Part 4 : Flavour Enhancers
1250:1992	Specification for Duck Eggs
1282: PART 2:1992	Specification for Food Additives Part 2 : Preservatives
1282: PART 1:1992	Specification for Food Additives : Part 1 : Acid Regulators
1284:1992	Specification for Soft Brown Sugar and Brown Sugar
1249:1992	Specification for Canned Mutton / Goat Meat in Curry
1251:1992	Specification for Canned Cuttlefish or Squid
1261:1992	Specification for Potato Chips
1253:1992	Specification for Cultured Milk(Fermented Milk)
1262:1992	Specification for High Fructose Glucose Syrup 42
1259:1992, Including AMD. 1:1993	Specification for Icing Sugar (Powdered Sugar)
1260:1992	Specification for Canned Ikan Bilis (Anchovies)
470:1992	Specification for Edible Sago Starch (First Revision)
1236 : 1991	Specification for Tamarind Pulp
1232:1991	Specification for Green Coffee
1235:1991	Specification for Roasted Ground Coffee
1230:1991 *	Specification for Fresh Okra (Lady'S Finger)
1200:1991	Specification for Corn Starch
1191:1991	Specification for Cereal-Based Snack Foods
526:1988 (CONFIRMED:2003)	Specification for Instant Noodles (First Revision)
1433:1998	Specification for Wafers
872 : 1990	Specification for Canned Beef Curry
1126:1989	Specification for Chilled and Frozen Meatburgers

1149:1989 *	Specification for Fresh Guava
1128:1989 *	Specification for Quick Frozen Mangosteen
1146:1989 *	Specification for Fresh Bitter Gourd
999 : 1989	Specification for Canned Chicken Curry
1075:1987, Including AMD.1:1989*	Export Specification for Fresh 'Mas' Bananas
1118:1988	Specification for Malaysian Cocoa Butter
1115:1988	Specification for Table Salt
1121:1988	Specification for Canned Fish in Oil
1122:1988	Specification for Canned Fish in Brine
813:1988	Specification for Gelatin
675:1988	Specification Forcanned Fish in Tomato Sauce (First Revision)
1112:1988	Specification for Instant Beehoon (Instant Rice Vermicelli)
1111:1988	Specification for Raw Unprocessed in-Shell Groundnuts to Be Processed Into Menglembu Groundnuts
673:1988	Specification for Canned Sweet Corn (First Revision)
243:1988	Specification for Monosodium Glutamate
242:1988	Specification for Butter/Recombined Butter (First Revision)
80 : 1987	Specification for Palm Kernel Oil
1083:1987	Specification for Ultra High Temperature (Uht) Flavoured Milk
239:1987	Specification for Coconut Oil (First Revision)
1040:1986 *	Specification for Fresh Papaya
1024:1986	Specification for Wheel Nuts for Passenger Vehicles

1053:1986, Including AMD.1:1991 & AMD. 2	Specification for Evaporated Filled Milk
1055 : 1986*	Specification for Fresh Jackfruit
1054:1986, Including AMD. 1:1991 & AMD. 2:1993	Specification for Condensed Filled Milk
997 : 1986	Specification for Canned Beans in Tomato Sauce
998 : 1986	Specification for Canned Long Beans
412:1986	Specification for Recombined Ultra High Temperature Milk and Recombined Ultra High Temperature Homogenized Milk (First Revision)
411:1986	Specification for Ultra High Temperature Milk and Ultra High Temperature Homogenized Milk (First Revision)
235 : 1986	Specification for Copra
1027:1986	Specification for Canned Passion Fruit Nectar
952 : 1985	Specification for Canned Processed Peas
955 : 1985	Specification for Beehoon (Rice Vermicelli)
958 : 1985	Specification for Citric Acid (Food Grade)
915 : 1985	Specification for Sodium Benzoate, Food Grade
950 : 1985	Specification for Canned Guava
885 : 1984 *	Specification for The Grading of Mangoes for Fresh-Fruit Consumption
884 : 1984	Specification for Canned Jackfruit
895 : 1984	Specification for Hard Boiled Sweets
899 : 1984	Specification for Dried Prawns
891 : 1984	Specification for Peanut Butter
901 : 1984	Specification for Canned Mango Nectar
902 : 1984	Specification for Canned Guava Nectar

25:1983, Including AMD. 1:1993	Specification for Condensed Milk (First Revision)
818:1983	Specification for Ice Used in The Fish and Prawn Industry
819:1983	Specification for Sodium Metabisulphite, Food Grade
812:1983	Specification for Canned Tropical Fruit Cocktail
413:1983	Specification for Pasteurized Recombined Milk and Pasteurized, Homogenized Recombined Milk (First Revision)
851 : 1983	Specification for Phosphoric Acid (Food Grade)
808:1983	Specification for Resh Fish
777:1982	Specification for Instant Coffee
759:1982	Specification for Cloves, Whole and Ground (Powdered)
760:1982	Specification for Skimmed Milk Powder / Non - Fat Dried Milk
780:1982	Specification for Canned Papaya-Pineapple Salad
21:1982	Specification for Glucose Syrup (Liquid Glucose) (First Revision)
718 : 1981	Specification for Ginger, Whole and in Pieces

742:1981	Specification for Prawns / Shrimps Canned in Brine
664:1980	Specification for Canned Mushrooms (Agaricus)
596:1979	Specification for Jams (Fruit Preserves), Jellies and Marmalades
597:1979	Specification for Beer
548:1978	Specification for Fresh, Chilled and Frozen Lamb and Mutton
545:1978	Specification for Fresh, Chilled and Frozen Beef
547:1978	Specification for Fresh, Chilled and Frozen Pork
459:1976 *	Specification for Fresh Bananas
304:1975	Specification for Canned Rambutans
232:1974 *	Specification for Malaysian Mandarins for Fresh-Fruit Consumption
238:1974	Specification for Rice Bran Oil
79:1973	Specification for The Storage and Transport of Green Bananas

3.5.1.5 Halal System

Halal System is a system to examine raw materials of food, production process, quality of products permissible under Islamic Law, and to certify and label halal-compliant products. Halal Development Company (HDC) is responsible for examination of standards and promotion of halal industry. MS standards and MS 1500:2009 are established as main standards. It is said that any food without halal mark can not be distributed in Malaysian market. Therefore, we should give due consideration to Halal system.

The Malaysian government recently announced its intentions of enacting a Halal Act, and it will be positioned as the dominant conception of current Halal system. While it is still unclear as to what kind of provisions would be found within the Act, it should likely have a significant impact on the

production, distribution, sales and so on.

3.5.1.6 Case Study

(1) Instant Noodles

Instant noodles are defined as "Pasta" including noodles, beehoon, laksa, macaroni and spaghetti in Food Regulations-1985.

Instant Wheat Noodle (MS 526:2009) in MS is a standard which complied with Instant Noodles developed by Codex. In Table 3.5-5, Instant Noodles is also compared with Instant Beehoon (MS1112:1988).

(2) Carbonated Soft Drinks

There are not any standards in Food Regulations-1985 and MS like those only for carbonated soft drink in Japan. Both of them cover variety of food items like common soft drinks (Table 3.5-6).

(3) Prepared Frozen Foods

While there are some standards for frozen confection, frozen meats and frozen vegetables, no standards for prepared frozen foods more like Japanese ones. There are not any appropriate standards in MS, however, relatively similar standards are presented in Table 3.5-7.

Table 3.5-5 Case Study 1 Instant Noodles

	Food Regulations 1985 (as at 1 st September 2009)	MS 526:2009	MS 1112:1988
Name of the Standard	Pasta	Instant Wheat Noodles	Instant Beehoon
Scope	<ul style="list-style-type: none"> Noodles, beehoon, laksa, macaroni and spaghetti 	<ul style="list-style-type: none"> Fried noodles, non-fried noodles 	<ul style="list-style-type: none"> Instant beehoon (instant rice vermicelli)
Description	<ul style="list-style-type: none"> Any product that is obtained by extruding or moulding units of dough. 	<ul style="list-style-type: none"> A product prepared from wheat as the main ingredient and other flour/starches, with or without the addition of other ingredients and packed with suitable packaging material. It may be treated by alkaline agents. It is characterised by the use of pregelatinisation process and dehydration either by frying or by other methods. 	<ul style="list-style-type: none"> Made up principally of rice flour and other wholesome food with or without the incorporation of seasoning.
Essential Composition and Quality Factor	<ul style="list-style-type: none"> Principally of a cereal meal May contain carbohydrate foods, egg solids, salt and any other food 	<ul style="list-style-type: none"> Free from dirt, foreign matter and insects. Acceptable in term of appearance, texture, aroma, taste and colour and be free from any undesirable off-flavours and odours. To qualify for the concept of 'instant', the noodle shall be cooked or soaked in not more than four minutes in boiling water. Essential ingredients are: <ol style="list-style-type: none"> wheat flour and other flour or starches; water; and 	<ul style="list-style-type: none"> In the form of solid strands and shall be free from mould, off-flavour, insect infestation or other spoilage. To qualify for the concept of 'instant', the product must be cooked in not more than four minutes in boiling water. Moisture: 12% Cooking time: 4 minutes Total protein: 5.7% Total ash: 1.0%

		<p>c) common salts or alkaline salts. The permitted alkaline salts are sodium, potassium, or calcium salt of carbonates, phosphates and/or hydroxides.</p> <ul style="list-style-type: none"> ▪ Moisture: 10% (fried), 14% (non-fried) ▪ Cooking or soaking time: 4 minutes (fried and non-fried) ▪ Protein content: 8.5% (fried and non-fried) ▪ Acid value: 2.0 mg KOH/g (fried), Not applicable (non-fried) 	
Food Additives	<ul style="list-style-type: none"> ▪ Permitted colouring substance ▪ Transglutaminase, sulphur dioxide or sulphites (as permitted food conditioner): <200mg/kg ▪ Subject to general requirements concerning food additives. 	<ul style="list-style-type: none"> ▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985. 	<ul style="list-style-type: none"> ▪ May contain food additives but not contain any added preservatives.
Contaminant	<ul style="list-style-type: none"> ▪ Arsenic (As): <1mg/kg ▪ Lead (Pb) : <2 mg/kg ▪ Tin (Sn): <40 mg/kg ▪ Mercury (Hg): <0.05 mg/kg ▪ Cadmium (Cd): <1 mg/kg ▪ Antimony (Sb): < 1mg/kg ▪ 3-monochloropropane-1,2-diol (3-MCPD) for all foods containing acid hydrolysed protein (solid foods): 0.05 mg/kg 	<ul style="list-style-type: none"> ▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985. 	<ul style="list-style-type: none"> ▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985.
Hygiene	<ul style="list-style-type: none"> ▪ Harmful, damaged packages prohibited ▪ No pathogenic microorganisms 	<ul style="list-style-type: none"> ▪ Packed in suitable packaging materials which will safeguard the hygienic, nutritional, 	<ul style="list-style-type: none"> ▪ Processed and packed under hygienic conditions.

	<ul style="list-style-type: none"> ▪ Aflatoxin or any other mycotoxins: <5 µg/kg ▪ Food Hygiene Regulations 2009 	<p>technological and organoleptic qualities of the product.</p> <ul style="list-style-type: none"> ▪ Packaging materials shall be made of substances which are safe and suitable for their intended use. They should not impart any toxic substances or undesirable odour or flavour. ▪ Processed and packed under hygienic conditions in premises licensed in accordance with MS1514 - Good Manufacturing Practices. 	
Weight and Measures	<ul style="list-style-type: none"> ▪ Not specified 	<ul style="list-style-type: none"> ▪ Not specified 	<ul style="list-style-type: none"> ▪ Not specified
Labelling	<ul style="list-style-type: none"> ▪ If labelled with the word “egg” or any word of similar meaning: >4% egg solids calculated on water-free basis ▪ Subject to general requirements for labelling ▪ Nutrition labelling is mandatory (regulation 18B of the Food Regulations 1985) 	<ul style="list-style-type: none"> ▪ The following information shall appear clearly on each package: <ul style="list-style-type: none"> a) name of product; b) name and address of the manufacturer and/or distributor or trade mark owner; c) net weight (in grams); d) list of ingredients and additives; e) date of manufacture or manufacturer’s code; f) date of expiry; and g) method of preparation. ▪ Shall comply with requirements specified in the Malaysian Food Act 1983 and Food Regulations 1985. 	<ul style="list-style-type: none"> ▪ The following information shall appear clearly on each package: <ul style="list-style-type: none"> a) name of product; b) list of ingredients and added additives; c) name of manufacturer and/or supplier; d) guaranteed net weight in grams; e) date of manufacture or manufacturer’s code; ▪ Shall comply with requirements specified in the Malaysian Food Act 1983 and Food Regulations 1985.
Methods of Analysis and Sampling	<ul style="list-style-type: none"> ▪ Additives, contaminants, microorganisms, mycotoxins 	<ul style="list-style-type: none"> ▪ Moisture: oven-drying method ▪ Protein content: Kjeldahl method ▪ Acid value: Titrimetric method ▪ Cooking time 	<ul style="list-style-type: none"> ▪ Moisture: oven-drying method ▪ Protein content: Kjeldahl method ▪ Ash content: Direct method ▪ Cooking time

Table 3.5-6 Case Study 2 Carbonated Soft Drinks

	Food Regulations 1985 (as at 1 st September 2009)	MS 601:1994
Name of the Standard	Flavoured drink	Ready-to-drink beverages (carbonated and non-carbonated)
Scope	<ul style="list-style-type: none"> ▪ Flavoured drink 	<ul style="list-style-type: none"> ▪ Ready-to-drink beverages including fruit drinks and flavoured drinks
Description	<ul style="list-style-type: none"> ▪ Flavoured drink shall be the soft drink composed of potable water and permitted flavouring substances, with or without sugar, glucose, high fructose glucose syrup or edible portions of extract of fruit or other plant substance. It may contain carbon dioxide. 	<ul style="list-style-type: none"> ▪ A non-alcoholic beverage and is saturated with carbon dioxide. It is prepared from comminuted fruit or fruit juices or concentrates and/or fruit or plant extracts, permitted sweeteners, potable water with or without the addition of the following ingredients: <ol style="list-style-type: none"> a) acidity regulators; b) permitted food conditioners; c) permitted flavouring substance; d) permitted preservatives; e) permitted colouring substance; f) permitted nutrient supplement like vitamin C; g) salts.
Essential Composition and Quality Factor	<ul style="list-style-type: none"> ▪ Not specified 	<ul style="list-style-type: none"> ▪ Free from insect, rodent contamination and foreign particles as well as visibly free from seeds and skins. ▪ Have the flavour and aroma characteristic of the fruits, vegetables or flavours for which it is claimed or implied. Foreign flavours and odours shall not be present. ▪ Carbon dioxide - industrial grade free from hydrogen sulphide, sulphur dioxide and other noxious gases, mineral oils and also free from foreign odour. ▪ Flavouring agents: <i>Comminuted fruit and fruit juices or concentrates</i> - Extracted from natural and properly washed fruits and fit for consumption. They may either be freshly

		<p>prepared or concentrated and preserved either by pasteurization or addition of permitted chemical preservatives.</p> <p><i>Essential oils and fruit/plant extracts</i> - Essential oils and fruit/vegetable extracts are compounds obtained from fruit or plants and shall be safe for human consumption.</p> <p><i>Flavouring substances</i> - Substance either naturally present in fruit/plant or added capable of imparting flavour to the product and shall be safe for consumption.</p>
Food Additives	<ul style="list-style-type: none"> ▪ May contain permitted preservative, permitted colouring substances and permitted food conditioner including: ester gum <150 mg/litre; and β-cyclodextrin <500 mg/litre ▪ May contain caffeine-containing plant extract as permitted flavouring substance: < 200 mg/litre ▪ Preservative: Sulphur dioxide: <140 mg/kg Benzoic acid: <350 mg/kg Sorbic acid: <350 mg/kg ▪ Flavouring substance: Agaric aid: <20 mg/kg Total hydrocyanic acid: <1 mg/kg Pulegone: <1 mg/kg Quassin: <5 mg/kg Quinine: <85 mg/kg Thujones: <0.5 mg/kg ▪ Subject to general requirements concerning food additives. 	<ul style="list-style-type: none"> ▪ Acid regulators - The following acids and the sodium, potassium, calcium salt of the acids may be used: a) citric acid; b) phosphoric acid; c) lactic acid; d) malic acid; e) acetic acid; f) fumaric acid; g) tartaric acid. ▪ Food colours, nutritive and non-nutritive sweeteners as per Food Regulations. ▪ Mineral salts - sodium carbonate and sodium bicarbonate ▪ Preservatives: Sulphuric dioxide: <140 ppm Benzoic acid: <350 ppm Sorbic acid: <350 ppm ▪ Flavouring agents (if used): Caffeine: <150 ppm Quinine: 40-85 ppm Vitamin C (ascorbic acid): 10 mg/100ml
Contaminant	<ul style="list-style-type: none"> ▪ Arsenic (As): <0.1mg/kg ▪ Lead (Pb) : <0.2 mg/kg ▪ Tin (Sn): <40 mg/kg (<250 mg/kg if packed in can) 	<ul style="list-style-type: none"> ▪ Metal contaminants: Copper: <1.0 ppm Arsenic: <0.02 ppm

	<ul style="list-style-type: none"> ▪ Mercury (Hg): <0.05 mg/kg ▪ Cadmium (Cd): <1 mg/kg ▪ Antimony (Sb): < 0.15 mg/kg 	Lead: <0.2 ppm
Hygiene	<ul style="list-style-type: none"> ▪ Harmful, damaged packages prohibited ▪ Any glass bottle that has previously been used for another food ▪ No pathogenic microorganisms ▪ Aflatoxin or any other mycotoxins: <5 µg/kg ▪ Food Hygiene Regulations 2009 	<ul style="list-style-type: none"> ▪ Total colony count: <50 per ml ▪ Viable yeast and moulds: <10 per ml ▪ Presumptive coliform organism: negative ▪ Shall be prepared under strict hygienic conditions in accordance with Good Manufacturing Practices and relevant public health requirements currently enforced.
Weight and Measures	<ul style="list-style-type: none"> ▪ Not specified 	<ul style="list-style-type: none"> ▪ Not specified
Labelling	<ul style="list-style-type: none"> ▪ For the purpose of these Regulations, the word “beer”, “lager”, “champagne” or “wine” or other words suggesting that the product is an alcoholic beverage shall not appear on the label of any soft drink other than ginger beer, ginger ale and root beer. ▪ In the case of soft drink in bottles with applied ceramic labelling, the requirements of regulations 11 and 14 [<i>general requirements for labelling relating to ‘Particulars in labelling’ and ‘Date marking’</i>] may be printed in a reduced size of not smaller than 2 point lettering on the cap or crown of such bottle. ▪ There shall be written in the label on a package containing flavoured syrup or flavoured cordial or flavoured drink the words “flavoured syrup” or “flavoured cordial” or “flavoured drink”, or the name of such flavour in uniform lettering not less than 10 point conjoined with the words “flavoured syrup” or “flavoured cordial” or “flavoured drink”, as the case may be. ▪ The label on the package of a flavoured syrup or flavoured drink shall not include - 	<ul style="list-style-type: none"> ▪ Each container shall be suitably labelled with the following information: <ul style="list-style-type: none"> a) name and trade-mark of the product; b) name and address of the manufacturer and/or packer; c) guaranteed net volume in ml; d) list of ingredients in descending order of proportions; e) code number indicating batch and/or date of manufacture; ▪ Shall comply with requirements specified in the Malaysian Food Act 1983 and Food Regulations 1985.

	<p>(a) any expression, pictorial representation or design that suggests or implies that the syrup or drink consists wholly or partly of fruit juice; or (b) a pictorial representation or design of a plant or part of a plant or a floral design that suggests or implies the presence of a plant in the syrup or drink</p> <ul style="list-style-type: none"> ▪ There shall be written in the label on a package containing flavoured syrup or flavoured drink to which caffeine has been added a statement as to the presence of caffeine in that beverage. Flavoured syrup and flavoured drink to which a permitted fruit flavouring substance has been added shall be labelled in uniform lettering of not less than 10 point with the name of such fruit or fruits, immediately followed by the word “flavour” or “flavoured” . ▪ Where fruit juice drink, fruit drink or flavoured drink is carbonated, there shall be written in the label on a package containing such drink - (a) the word “carbonated fruit juice drink” or “carbonated fruit drink” or “carbonated flavoured drink” as the case may be; or (b) the words “carbonated (state the name of the fruit) juice drink” or “carbonated (state the name of the fruit) fruit drink” or “carbonated (state the name of the flavour) flavoured drink” , as the case may be. ▪ Where flavoured drink or botanical beverage contains quinine in a proportion exceeding 40 mg/litre - (a) the proportion of quinine added in mg/litre shall be stated on the label; and (b) such product may be labelled as “tonic water” . ▪ Subject to general requirements for labelling 	
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	<ul style="list-style-type: none"> ▪ Nutrition labelling is mandatory (regulation 18B of the Food Regulations 1985) 	
Methods of Analysis and Sampling	<ul style="list-style-type: none"> ▪ Additives, contaminants, microorganisms, mycotoxins 	<ul style="list-style-type: none"> ▪ Caffeine: HPLC method ▪ Quinine: spectrophotometric method ▪ Ascorbic acid (vitamin c): titrimetric method ▪ Copper, arsenic, lead: Atomic absorption spectrophotometric method ▪ Total colony count: pour plate method ▪ Yeast & moulds: pour plate method ▪ Coliforms: MPN method ▪ Sulphur dioxide: Rankin method ▪ Benzoic acid and sorbic acid: HPLC method

Table 3.5-7 Case Study 3 Prepared Frozen Foods

	Food Regulations 1985 (as at 1 st September 2009)	MS 1125:2003	MS 1126:2003
Name of the Standard	Food not elsewhere standardized	Meat Frankfurters	Meat Burgers
Scope	<ul style="list-style-type: none"> Food not elsewhere standardized 	<ul style="list-style-type: none"> Chilled and frozen meat frankfurters made from comminuted meat (beef, lamb and mutton, poultry, pork) with or without meat by-products in the form of a sausage 	<ul style="list-style-type: none"> Chilled and frozen meat burgers made from comminuted meat (beef, lamb and mutton, poultry, pork).
Description	<ul style="list-style-type: none"> Food for which a standard has not been otherwise expressly prescribed by these Regulations. 	<ul style="list-style-type: none"> Frankfurters shall be sausages that are either raw or cooked with or without smoking. The product is prepared from comminuted meat, seasoned with salt, herbs and spices, mixed with food additives, filler and binders and packed into casings made from cellulose, collage or intestines of animals. The frankfurters unless otherwise specified shall be skinless or skin on and uniform in size and shape. 	<ul style="list-style-type: none"> Meat burgers shall be the meat product prepared from comminuted meat with or without the addition of fillers, binders, herbs and spices, salt, sweeteners and other food additives, and is sold in various shapes and sizes.
Essential Composition and Quality Factor	<ul style="list-style-type: none"> Not specified 	<ul style="list-style-type: none"> All meat including mechanically deboned meat used shall be obtained from healthy animals slaughtered in a hygienically-managed slaughter-house and poultry processing plant. Trimnings which are bruised or from damaged parts of bellies shall not be used. Feet and other by-products including brain, gastrointestinal tract, paunches, udders, sweetbreads (thymus, pancreas), tripe, spleen, lungs, salivary 	<ul style="list-style-type: none"> All meat including mechanically deboned meat used shall be obtained from healthy animals slaughtered in a hygienically-managed slaughter-house and poultry processing plant. Trimnings which are bruised or from damaged parts of bellies shall not be used. Feet and other by-products including brain, gastrointestinal tract, paunches, udders, sweetbreads (thymus,

		<p>glands, lymphatic glands, testicles, uterus, ovaries, cartilage and bony tissue shall not be used.</p> <ul style="list-style-type: none"> ▪ Fillers - textured vegetable proteins, cereal rusks, flours or other wholesome edible materials of farinaceous origin may be used. ▪ Binders - Other non-meat proteins from soya bean or dairy products may be used. ▪ Fat - only wholesome, edible vegetable or animal fat derived from the same species of animal used in the product, may be used. ▪ Herbs and spices - all herbs, spices and extracts used shall be clean, sound, wholesome, and shall comply with the requirements of Malaysian Food Act 1983 and Food Regulations 1985. ▪ Salt - edible white refined salt shall be used. ▪ Sweeteners - only sugar (sucrose) conforming to the requirements in "MS 82:1989 - Specifications for white refined sugar for industrial use" or dextrose or other permissible sweeteners shall be used. ▪ Finished product - either raw or thoroughly cooked or smoked, or flavoured and cooked and shall be delivered in good condition. They shall show no signs of deterioration at the time of delivery. ▪ Flavour and appearance - shall be 	<p>pancreas), tripe, spleen, lungs, salivary glands, lymphatic glands, testicles, uterus, ovaries, cartilage and bony tissue shall not be used.</p> <ul style="list-style-type: none"> ▪ Fillers - textured vegetable proteins, cereal rusks, flours or other wholesome edible materials of farinaceous origin may be used. ▪ Binders - Other non-meat proteins from soya bean or dairy products may be used. ▪ Fat - only wholesome, edible vegetable or animal fat derived from the same species of animal used in the product, may be used. ▪ Herbs and spices - all herbs, spices and extracts used shall be clean, sound, wholesome, and shall comply with the requirements of Malaysian Food Act 1983 and Food Regulations 1985. ▪ Salt - edible white refined salt shall be used. ▪ Sweeteners - only sugar (sucrose) conforming to the requirements in "MS 82:1989 - Specifications for white refined sugar for industrial use" or dextrose or other permissible sweeteners shall be used. ▪ Finished product - uniform in size and shall be delivered in good condition. They shall show no signs of deterioration at the time of delivery. ▪ Flavour and appearance - shall be palatable, have a pleasant
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		<p>palatable, have a pleasant flavour, an attractive appearance with no visible damage, objectionable colour and odour.</p> <ul style="list-style-type: none"> ▪ Texture - shall be a good uniform texture, characteristic of the product. ▪ Freedom from defects - pieces of hair, bristle, skin and particles of bone shall not be present in the product. The product shall be free from dirt and from insect and rodent contamination or any other foreign matter. Poisonous or deleterious substance shall not be present. ▪ Contain $\geq 65\%$ by weight of meat. ▪ May contain meat by-products which include hearts, tongues, diaphragm meat and weasands up to a limit of 15% calculated on the weight of all ingredients with the exception of the added water. ▪ Salt, sugar and seasoning all together shall not exceed 4% by weight. ▪ Moisture content: max. 60% by wet weight ▪ Total fat content: max. 30% by wet weight ▪ Protein content: min. 11% by wet weight 	<p>flavour, an attractive appearance with no visible damage, objectionable colour and odour.</p> <ul style="list-style-type: none"> ▪ Texture - shall be a good uniform texture, characteristic of the product. ▪ Freedom from defects - pieces of hair, bristle, skin and particles of bone shall not be present in the product. The product shall be free from dirt and from insect and rodent contamination or any other foreign matter. Poisonous or deleterious substance shall not be present. ▪ Contain $\geq 65\%$ by weight of meat. ▪ Salt, sugar and seasoning all together shall not exceed 4% by weight. ▪ Moisture content: max. 60% by wet weight ▪ Total fat content: max. 30% by wet weight ▪ Protein content: min. 15% by wet weight
Food Additives	<ul style="list-style-type: none"> ▪ May contain permitted nutrient supplement, permitted food conditioner, permitted flavouring substance, permitted 	<ul style="list-style-type: none"> ▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985. 	<ul style="list-style-type: none"> ▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985.

	<ul style="list-style-type: none"> ▪ colouring substance and permitted flavour enhancer. ▪ Shall not contain permitted non-nutritive sweetening substance. ▪ No person shall use permitted preservative in food not elsewhere standardized without the prior approval of the Director. 		
Contaminant	<ul style="list-style-type: none"> ▪ Arsenic (As): <1mg/kg ▪ Lead (Pb) : <2 mg/kg ▪ Tin (Sn): <40 mg/kg ▪ Mercury (Hg): <0.05 mg/kg ▪ Cadmium (Cd): <1 mg/kg ▪ Antimony (Sb): < 1mg/kg ▪ 3-monochloropropane-1,2-diol (3-MCPD) for all foods containing acid hydrolysed protein (solid foods): 0.05 mg/kg 	<ul style="list-style-type: none"> ▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985. 	<ul style="list-style-type: none"> ▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985.
Hygiene	<ul style="list-style-type: none"> ▪ Harmful, damaged packages prohibited ▪ No pathogenic microorganisms. ▪ Aflatoxin or any other mycotoxins: <5 µg/kg ▪ Food Hygiene Regulations 2009 	<ul style="list-style-type: none"> ▪ After processing, frankfurters may be chilled before freezing and the freezing completed at -12°C or lower within 24 hours. The product shall be stored at a temperature not below -18°C throughout the storage period. ▪ Prepared and handled under strict hygienic conditions in accordance to Good Manufacturing Practices as specified in MS 1514 and MS 1480. ▪ Unless agreed otherwise between the purchaser and the manufacturer 	<ul style="list-style-type: none"> ▪ After processing, the meat burgers may be chilled before freezing and the freezing completed at -12°C or lower within 8 hours. The product shall be stored at a temperature not below -18°C throughout the storage period. ▪ Prepared and handled under strict hygienic conditions in accordance to Good Manufacturing Practices as specified in MS 1514 and MS 1480. ▪ Unless agreed otherwise between the purchaser and the manufacturer

		<p>or the packer, frankfurters shall be packed in properly sealed bags/packaging material made of suitable food grade flexible transparent packaging material or in hermetically sealed containers.</p> <ul style="list-style-type: none"> ▪ Mesophilic aerobic plate count (at 37°C for 48h): <math>10^4</math> (cooked), <math>10^5</math> (raw) per gram ▪ Coliform count (at 37°C for 48h): <math>50</math> per gram ▪ <i>E. coli</i>: negative ▪ <i>Salmonellae</i>: negative ▪ <i>S. aureus</i>: negative ▪ <i>Clostridia</i>: negative 	<p>or the packer, meat burgers shall be packed in properly sealed bags/packaging material made of suitable food grade flexible transparent packaging material or in hermetically sealed containers.</p> <ul style="list-style-type: none"> ▪ Mesophilic aerobic plate count (at 37°C for 48h): <math>2.5 \times 10^5</math> per gram ▪ Coliform count (at 37°C for 48h): <math>100</math> per gram ▪ <i>E. coli</i>: negative ▪ <i>Salmonellae</i>: negative ▪ <i>S. aureus</i>: <math>100</math> per gram
Weight and Measures	<ul style="list-style-type: none"> ▪ Not specified 	<ul style="list-style-type: none"> ▪ Not specified 	<ul style="list-style-type: none"> ▪ Not specified
Labelling	<ul style="list-style-type: none"> ▪ There shall not be written in the label on a package containing food not elsewhere standardized or in an advertisement relating to that food any word or expression that compares a nutritional property or the ingredients of a food not elsewhere standardized with those of another food. ▪ Food not elsewhere standardized shall not be described or presented in such a manner or by such name or pictorial or other representation or devices as is suggestive of another article of food of which it is 	<ul style="list-style-type: none"> ▪ Each package shall be suitably labelled with the following: <ul style="list-style-type: none"> a) the name of the product; b) a declaration of the presence of additives and a declaration indicating the common name of animal from which the meat is derived; c) name and address of the manufacturer and/or packer or the owner of the rights to manufacture or packing or the agent of any of them; d) minimum net weight in grams; e) list of ingredients in descending order of proportions used by weight in the product; f) storage instructions; g) for products which are not fully shelf-stable, i.e. which may be 	<ul style="list-style-type: none"> ▪ Each package shall be suitably labelled with the following: <ul style="list-style-type: none"> a) the name of the product; b) a declaration of the presence of additives and a declaration indicating the common name of animal from which the meat is derived; c) name and address of the manufacturer and/or packer or the owner of the rights to manufacture or packing or the agent of any of them; d) minimum net weight in grams; e) list of ingredients in descending order of proportions used by weight in the product; f) storage instructions; g) for products which are not fully shelf-stable, i.e. which may be

	<p>intended to be an imitation or substitute or which it resembles.</p> <ul style="list-style-type: none"> ▪ The word “food not elsewhere standardized” shall not appear on the label of any package containing food not elsewhere standardized. ▪ Subject to general requirements for labelling ▪ Nutrient labelling is mandatory (regulation 18B of the Food Regulations 1985) 	<p>expected not to keep for at least one year in normal conditions of storage and sale, adequate storage instructions shall be given on the label. These instructions shall state the recommended maximum temperature or conditions of storage and, in the case of products sold to the consumer, an indication of the recommended maximum period of storage in specified conditions shall be given;</p> <p>h) country of origin.</p> <ul style="list-style-type: none"> ▪ Shall comply with requirements specified in the Malaysian Food Act 1983 and Food Regulations 1985. 	<p>expected not to keep for at least one year in normal conditions of storage and sale, adequate storage instructions shall be given on the label. These instructions shall state the recommended maximum temperature or conditions of storage and, in the case of products sold to the consumer, an indication of the recommended maximum period of storage in specified conditions shall be given;</p> <p>h) country of origin.</p> <ul style="list-style-type: none"> ▪ Shall comply with requirements specified in the Malaysian Food Act 1983 and Food Regulations 1985.
Methods of Analysis and Sampling	<ul style="list-style-type: none"> ▪ Additives, contaminants, microorganisms, mycotoxins 	<ul style="list-style-type: none"> ▪ Moisture content: oven-drying method (MS 954:Part 1:2000) ▪ Total fat content: acid hydrolysis method (MS 954: Part 4:1985) ▪ Protein content: Kjeldahl method (MS 954: Part 11:1986) ▪ <i>Salmonellae</i>: detection (MS 1110:Part 1:1988) ▪ Coliforms and <i>E. coli</i>: detection and enumeration (MS 1110:Part 2:1989) ▪ Mesophilic aerobic plate count: enumeration (MS 1110:Part 3:1989) ▪ <i>S. aureus</i>: detection and enumeration (MS 1110:Part 4:1989) ▪ <i>Clostridia</i>: detection (MS 1110:Part 5:1992) 	<ul style="list-style-type: none"> ▪ Moisture content: oven-drying method (MS 954:Part 1:2000) ▪ Total fat content: acid hydrolysis method (MS 954: Part 4:1985) ▪ Protein content: Kjeldahl method (MS 954: Part 11:1986) ▪ <i>Salmonellae</i>: detection (MS 1110:Part 1:1988) ▪ Coliforms and <i>E. coli</i>: detection and enumeration (MS 1110:Part 2:1989) ▪ Mesophilic aerobic plate count: enumeration (MS 1110:Part 3:1989) ▪ <i>S. aureus</i>: detection and enumeration (MS 1110:Part 4:1989) ▪ <i>Clostridia</i>: detection (MS 1110:Part 5:1992)

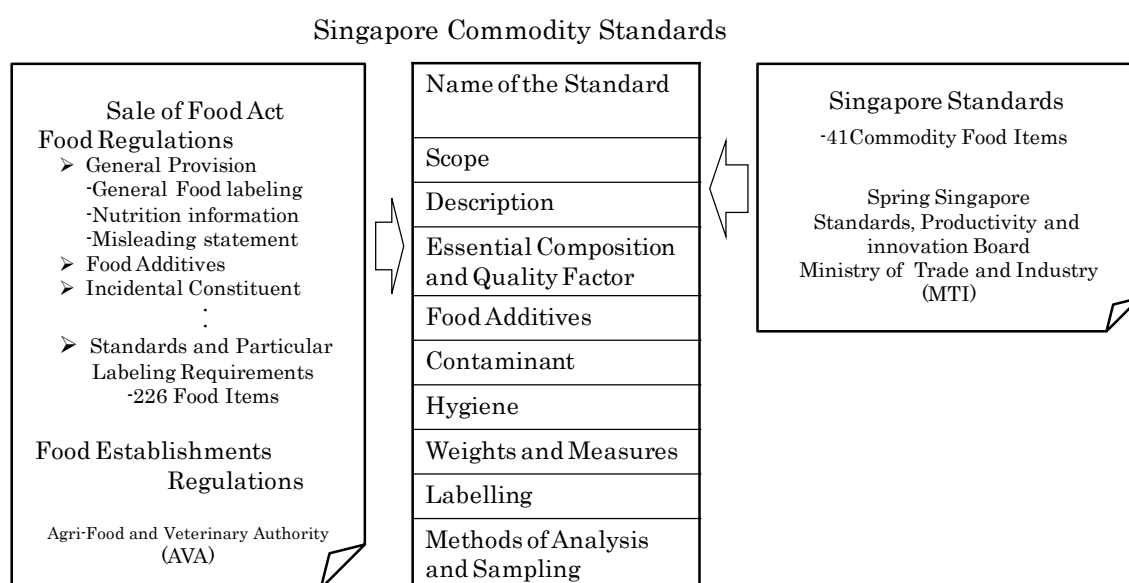
3.5.2 Singapore

3.5.2.1 Food Administration

Administrative body responsible for food standards, safety and hygiene control is consolidated in Agri-Food and Veterinary Authority (AVA) of Ministry of National Development. AVA administers wide range of animals, pets, agriculture and fishery, as well as foods.

3.5.2.2 Summary Chart of relationship of Food Law System and Singapore Commodity Standards

The chart is presented in Figure 3.5-2.



3.5.2.3 Sale of Food Act

AVA (Agri-Food and Veterinary Authority) collectively administers Sale of Food Act. AVA was a bureau which originally administered primary products. In 2000, AVA was reorganized to administer quality and safety of food related substances for securing food safety.

(1) Sale of Food Act-2002¹

Sale of Food Act is established for securing wholesomeness and purity of food and fixing standards for preventing the sale or other disposition, or the use of articles dangerous or injurious to health, and for providing for the regulation of food establishments.

¹http://www.ava.gov.sg/NR/rdonlyres/0CA18578-7610-4917-BB67-C7DF4B96504B/8725/Attach59_legislation_SaleofFoodAct.pdf

(2) Food Regulation-2006²

Supplementary provisions of Sale of Food Act are compiled in Food Regulation and is continuously updated on amendment and newly setting of regulations. Food Regulation provides detailed general requirements for labeling, food additives, contaminants, bacterial toxin container packaging, irradiated food, and commodity standards. In the Chapter 4, commodity standards and the special labeling requirements for 226 food items (Table 3.5-8) are listed. It stipulated minimum definition, component standards and special labeling requirements.

(3) Food Establishments Regulations-2009³

Food Establishments Regulation in Sale of Food Act regulates provides general food hygiene requirements against food handlers and food establishment.

3.5.2.4 Singapore Standards

Singapore Standard (SS) exists as commodity standard which are administered by Standards, Productivity and innovation Board (Spring Singapore) of Ministry of Trade and Industry (MTI). While, Singapore Standards is national standards for all industries pursuant to ISO, it is basically voluntary standards (it may become mandatory standards when issues related to safety, environment and health are referred by administrative authority.)

²<http://www.ava.gov.sg/NR/rdonlyres/0CA18578-7610-4917-BB67-C7DF4B96504B/11405/FoodRegulations1.pdf>

³http://www.ava.gov.sg/NR/rdonlyres/0CA18578-7610-4917-BB67-C7DF4B96504B/8729/Attach64_legislation_Sale_FdEstb_rules.pdf

Table 3.5-8 Commodity Standard in Food Regulation

No.	Title
FLOUR, BAKERY AND CEREAL PRODUCTS	
39	Flour or wheat flour
40	Wholemeal, whole wheat or entire wheat flour
41	Vital gluten flour
42	Self-raising flour
43	Protein-increased flour
44	Corn flour
45	Rice flour
46	Tapioca flour
47	Bakery products
48	Bread
49	Wholemeal bread
50	Fruit bread
51	Rye bread
52	Milk bread
53	Labelling of bakery products
54	Flour confectionery
55	Pasta
55-1	Noodles
55-2	Rice noodles
56	Labelling of pasta
AERATING INGREDIENTS	
57	Cream of Tartar
58	Baking powder
MEAT AND MEAT PRODUCTS	
59	Meat
60	Fresh, raw or chilled meat
60A	Dressed Bird
61	Frozen meat
62	Corned, cured, pickled or salted meat
63	Smoked meat
64	Minced or chopped meat
65	Hamburgers or beefburgers and similar products
66	Sausage meat
67	Sausages
68	Meat extracts, meat essences and meat juices
69	Chicken essence and double strength chicken essence
70	Meat paste or pate
FISH AND FISH PRODUCTS	
71	Fish
72	Fresh or chilled fish
73	Frozen fish
74	Smoked fish
75	Salted fish
76	Fish paste
77	Fish cakes and fish balls
EDIBLE FATS AND OILS	
78	Edible fats and oils
79	Labelling of edible fats or oils
80	Coconut oil
81	Corn oil
82	Cottonseed oil
83	Groundnut oil
84	Olive oil
85	Safflower oil
86	Sesame oil
87	Soya bean oil
88	Sunflower seed oil
89	Dripping
90	Lard
91	Margarine
91A	Fat spread
92	Vanaspati
MILK AND MILK PRODUCTS	
93	Milk
94	Pasteurised milk
95	Ultra heat treated milk
96	Sterilised milk
97	Homogenised milk
98	Reconstituted or recombined milk
99	Evaporated milk

100	Sweetened condensed milk
101	Dried milk or milk powder or dried whole milk or dried full cream milk or full cream milk powder
102	Dried half cream milk
103	Skimmed or separated milk or defatted milk
104	Filled milk
105	Flavoured milk
106	Lactobacillus milk drink or cultured milk drink
107	Malted milk powder
108	Whey
109	Labelling of milk
110	Cream
111	Homogenised cream
112	Reconstituted or recombined cream
113	Thickened cream
114	Reduced cream
115	Sour cream
116	Butter
117	Cheese
118	Cheddar cheese
119	Unnamed cheese
120	Cream cheese
121	Processed or emulsified cheese
122	Cheese spread or cheese paste
123	Yoghurt
124	Fruit yoghurt
125	Ghee or ghi
ICE-CREAM, FROZEN CONFECTIONS AND RELATED PRODUCTS	
126	Ice-cream
127	Dairy ice-cream
128	Milk-ice
129	Frozen confections
SAUCE, VINEGAR AND RELISHES	
130	Sauce
131	Soya bean sauce
132	Oyster sauce

133	Tomato sauce
134	Chilli sauce
135	Vinegar
136	Distilled vinegar
137	Blended vinegar
138	Artificial or imitation vinegar
139	Labelling of vinegar
140	Salad dressing
141	Pickles
142	Chutney
SUGAR AND SUGAR PRODUCTS	
143	Sugar
144	Refined soft brown sugar
145	Icing sugar or icing mixture
146	Molasses
147	Table molasses
148	Dextrose anhydrous
149	Dextrose monohydrate
150	Glucose syrup
151	Honey
151A	A Royal jelly
152	Sugar confectionery
TEA, COFFEE AND COCOA	
153	Tea
154	Tea dust, tea siftings and tea fannings
155	Instant tea
156	Brewed tea
157	Coffee
158	Coffee and chicory
159	Coffee mixture
160	Instant coffee or soluble coffee
161	Instant coffee and chicory or soluble coffee and chicory
162	Decaffeinated coffee
163	Cocoa beans
164	Cocoa nibs
165	Cocoa paste, cocoa mass or cocoa slab
166	Cocoa, cocoa powder or powdered cocoa

167	Cocoa essence or soluble cocoa
168	Chocolate
169	Milk chocolate
170	Chocolate confectionery
FRUIT JUICES AND FRUIT CORDIALS	
171	Fruit juices
172	Concentrated fruit juice
173	Nectar
174	Fruit juice cordials, squashes or syrups
175	Fruit drinks or fruit crushes
JAMS	
176	Jams
177	Fruit jelly
178	Marmalade
179	Kaya or egg jam
NON-ALCOHOLIC DRINKS	
180	Flavoured cordials or syrups
181	Soya bean milk
182	Flavoured soya bean milk
183	Soft drinks
183A	A Natural mineral water
184	Labelling of non-alcoholic drinks
ALCOHOLIC DRINKS	
185	Intoxicating liquors
186	Ale, beer, lager, porter or stout
187	Wine
188	Malt wine
189	Quinine wine
190	Aromatic wine, wine cocktail and vermouth
191	Port and sherry
192	Meat wine or beef wine
193	Sparkling wine
194	Carbonated wine
195	Fruit wine
196	Cider or perry
197	Sparkling cider or sparkling perry
198	Aerated cider or aerated perry

199	Honey wine
200	Cereal grain wine and Chinese wine
201	Brandy
202	Marc brandy
203	Fruit brandy
204	Whisky
205	Rum
206	Gin
207	Vodka
208	Liqueurs and alcoholic cordials
209	Blended liquor
210	Compounded liquor
SALTS	
211	Salt
212	Iodised salt
SPICES AND CONDIMENTS	
213	Spices and condiments
214	Aniseed (Jintan manis)
215	Caraway seed (Jintan)
216	Greater Cardamon (Kepulaga Besar) or Lesser Cardamon (Kepulaga Kecil)
217	Celery seed (Biji Seladeri)
218	Chilli
219	Cinnamon (Kayu Manis)
220	Cloves (Bunga Cengkih)
221	Coriander (Ketumbar)
222	Cumin seed (Jintan Putih)
223	Black Cumin (Jintan Hitam)
224	Dill seed (Adas Manis)
225	Fennel fruit or seeds (Adas Pedas)
226	Fenugreek (Halba)
227	Ginger
228	Mace (Jaitree) (Bunga Pala)
229	Mustard seed (Biji Sawi)
230	Prepared mustard
231	Nutmeg (Buah Pala)
232	Black pepper or pepper corn

233	White pepper
234	Star anise (Bunga Pekak)
235	Tumeric (Kunyit)
236	Curry powder
FLAVOURING ESSENCES OR EXTRACTS	
237	Almond essence
238	Ginger essence
239	Lemon essence
240	Lemon oil
241	Orange essence
242	Peppermint essence
243	Rose essence
244	Vanilla extract
245	Flavouring essences
FLAVOUR ENHANCERS	
246	Monosodium glutamate
SPECIAL PURPOSE FOODS	
247	Special purpose foods

248	Labelling requirements for special purpose foods
249	Low-calorie food
250	Diabetic food
251	Infants' food
252	Infant formula
253	Infant milk formula or infant milk preparation
254	Labelling of infant formula
MISCELLANEOUS FOODS	
255	Agar
256	Custard powder
257	Edible gelatin
258	Fish crackers
259	Prawn crackers
RICE	
260	Rice

To note : Missing sequential regulation numbers are due to intentional deletion of the regulation from the Food Regulations.

Singapore Standards shown in Table 3.5-9 are in the same format as for Codex Commodity Standards.

Table 3.5-9 Format of Singapore Standard

SINGAPORE STANDARD SS 219:1979 (ICS 67.06) Specification for dried noodles and pasta products	
Contents	
1 Scope	Appendices
2 Classification	Annex A Determination of Protein Content – Improved Kjeldahl Method
3 Requirements	Annex B Determination of Moisture Content – Air-Oven Method
4 Sampling and preparation of Test Sample	Annex C Determination of Total Solids in Gruel
5 Tests	Annex D Determination of free Fatty Acids and Peroxide Value of Extracted Oil
6 Packaging	
7 Marking	

The number of Singapore Standards set by Food Standard Committee is approximately 90. And commodity standards excluding for analytical methods and implementation are 41 standards (Table 3.5-10) out of them. These are basically voluntary standards, but, certified mark can be labeled by obtaining official certification.

3.5.2.5 Case Study

(1) Instant Noodles

Instant noodles are defined as "Pasta" including noodles, beehoon, macaroni, spaghetti and "mee" in Food Regulations-2006. The standard is not specific for instant noodles. Singapore Standard is the same, therefore, dried noodles and pasta products (SS219:1979) is also presented in Table 3.5-11 as reference.

(2) Carbonated Soft Drinks

In Food Regulations-2006, any standards only for carbonated soft drinks are not set. It covers variety of items like common soft drinks, and is different from Japanese standard in more food items excluded from soft drink. Singapore Standards for carbonated and non-carbonated beverages (SS 62:1997) set standards for wide variety of beverages including carbonated soft drinks (Table 3.5-12).

Table 3.5-10 Commodity Standards in Singapore Standard

S/N	Product Title	Stan. No.
1	Full-cream sweetened condensed milk Status: Archived	SS 10:1970
2	Groundnut (peanut) oil Status: Current	SS 12:1995
3	Coconut oil Status: Current	SS 13:1995
4	Wheat flour (white) Status: Archived	SS 46:1971
5	Margarine Status: Current	SS 47:1997
6	Monosodium glutamate for seasoning Status: Archived	SS 61:1972
7	Carbonated and non-carbonated beverages Status: Current	SS 62:1997
8	White refined sugar Status: Archived	SS 94:1972
9	Butter Status: Current	SS 95:1997
10	Glucose syrup Status: Current	SS 113:1995
11	Evaporated milk Status: Archived	SS 114:1974
12	Cordials Status: Current	SS 115:1995
13	Refined, deodorized and winterized corn (or maize) oil Status: Current	SS 134:1995
14	Refined and deodorized soya bean oil Status: Current	SS 135:1995
15	Vanaspati Status: Current	SS 147:1997
16	Reconstituted or recombined milk Status: Archived	SS 148:1976
17	Vegetable cooking oil Status: Current	SS 172:1995
18	Peanut butter Status: Current	SS 179:1978
19	Refined and deodorized palm olein Status: Current	SS 182:1995
20	Dried noodles and pasta products Status: Archived	SS 219:1979
21	Sesame oil Status: Current	SS 220:1995
22	Rice vermicelli Status: Current	SS 237:1980

23	Tomato ketchup Status: Current	SS 238 : 1980
24	Palm kernel oil Status: Current	SS 252:1995
25	White pan bread Status: Current	SS 253:1981
26	Skimmed and whole milk powder Status: Archived	SS 260:1982
27	Cream crackers Status: Current	SS 287:1984
28	Soy sauce Status: Current	SS 288:1998
29	Soya bean milk and soya bean drink Status: Current	SS 302:1985
30	Black pepper and white pepper (whole and ground) Status: Current	SS 315:1997
31	Cocoa butter Status: Current	SS 319:1997
32	Plain semi-sweet biscuits (non-creamed) Status: Current	SS 329:1988

33	Filled milk sweetener Status: Current	SS 330:1988
34	Chilli sauce Status: Current	SS 340:1999
35	Refined, deodorized and winterized sunflower seed oil Status: Current	SS 349:1997
36	Semolina Status: Current	SS 350:1990
37	Self-raising flour Status: Current	SS 351:1990
38	Wholemeal flour Status: Current	SS 352:1990
39	Sugar confectionery Status: Current	SS 464:1999
40	Kaya Status: Current	SS 466:1999
41	Chillies and capsicums, whole or ground (powered) Status: Current	SS 487:2001

(3) Prepared Frozen Foods

In Food Regulation-2006, any standards only for prepared frozen foods are not set. Also, in Singapore Standard, there is sole standard for disposition and handling of quick frozen foods (CP 46:1989).

Table 3.5-11 Case Study1 Instant Noodles

	Food Regulations (as at 1 st September 2006)	SS 219:1979
Name of the Standard	Pasta	Dried noodles and pasta products
Scope	<ul style="list-style-type: none"> ▪ Noodles of various types, including products which are commonly known as “mee” (“mian”) or other “mee” products. ▪ Noodles including “spaghetti” , “macaroni” and the product commonly known as “mee sua” (“mian xian”). ▪ Rice noodles of various types, including products which are commonly known as “kuay teow” (“guo tiao”), “bee tai mak” (“mi shai mu”) and “hor fun” (“he fen”), “bee hoon” (“mi fen”). 	<ul style="list-style-type: none"> ▪ Dried noodle products covering noodles, instant noodles and “mian xian” .
Description	<ul style="list-style-type: none"> ▪ Any product which is prepared by drying of extruded or moulded units of dough or by steaming of slitted dough with or without drying. 	<ul style="list-style-type: none"> ▪ Prepared from wheat flour, with or without the addition of sodium chloride, sodium bicarbonate, permitted colouring, flavouring matters and other food additives. The instant noodles could be flavoured separately by means of the soup base sachets. This group of products shall be subjected to a sheeting process. The products shall be in the form of rods or ribbons except for “mian xian” which shall be in the form of long thin threads.
Essential Composition and Quality Factor	<ul style="list-style-type: none"> ▪ Principally of a cereal meal. ▪ May contain common salt, eggs, various kinds of starch, edible fats and oils, and any other foodstuffs. ▪ Noodles except those with <20% moisture (includes “mee” and “mee products”): >50% flour ▪ Noodles with <20% moisture (includes “spaghetti” , “macaroni” and “mee sua”): >70% wheat flour ▪ Rice noodles except those with <20% moisture (including “kuay teow” , “bee tai mek” and “hor fun”): >50% rice flour ▪ Rice noodles with <20% moisture: >80% rice flour 	<ul style="list-style-type: none"> ▪ Made from raw materials which are clean, wholesome and free from evidence of insect and rodent infestation and other objectionable matter. ▪ The finished product shall be of good colour and reasonably free from broken units and dark specks. ▪ When cooked, the products shall be tender and firm and possess a good characteristic flavour and odour. ▪ Instant noodles shall be cooked within 3 minutes. ▪ Protein content: min. 9.0% on dry weight basis ▪ Moisture content: max. 13% ▪ Total solids in gruel: max. 8% ▪ Free fatty acids, as oleic acid of extracted oil (applies only to noodles products which have been deep fried in edible oils

		<p>during processing): max. 0.8%</p> <ul style="list-style-type: none"> ▪ Peroxide value of extracted oil (applies only to noodles products which have been deep fried in edible oils during processing): 10.0 per kg oil
Food Additives	<ul style="list-style-type: none"> ▪ Permitted flavouring agents ▪ Permitted colouring matters ▪ Subject to general requirements for food additives. 	<ul style="list-style-type: none"> ▪ Not specified
Contaminant	<ul style="list-style-type: none"> ▪ Arsenic (As): <1 ppm ▪ Lead (Pb): <2 ppm ▪ Copper (Cu): <20 ppm ▪ Tin (Sn): <250 ppm ▪ Cadmium (Cd): <0.2 ppm ▪ Antimony (Sb): <1 ppm ▪ Selenium (Se): <1 ppm 	<ul style="list-style-type: none"> ▪ Not specified
Hygiene	<ul style="list-style-type: none"> ▪ Package or container made with compounds known to be carcinogenic, mutagenic, teratogenic or any other poisonous or injurious substance. ▪ Mycotoxins: negative ▪ Total Count at 37°C for 48 hours: Not more than 1000,000 per mg ▪ Sale of Food (Food Establishments) Regulations 	<ul style="list-style-type: none"> ▪ The product shall be suitably packaged to protect the contents from contamination and deterioration under normal conditions of storage and transport.
Weight and Measures	<ul style="list-style-type: none"> ▪ Not specified 	<ul style="list-style-type: none"> ▪ Not specified
Labelling	<ul style="list-style-type: none"> ▪ If labelled with the word “egg” or any word of similar meaning: >4% egg solids calculated on dry basis ▪ Subject to general requirements for labelling. ▪ Nutrition labelling is required only if a nutritional claim is made (regulation 8A of the Food Regulations) 	<ul style="list-style-type: none"> ▪ The packet shall be legibly marked as follows: <ul style="list-style-type: none"> a) Name and type of the product b) Name and address of the manufacturer and/or his registered trade mark c) Batch or code number d) Net weight
Methods of Analysis and Sampling	<ul style="list-style-type: none"> ▪ Food additives, contaminants, microorganisms, mycotoxins 	<ul style="list-style-type: none"> ▪ Protein content: Improved Kjeldahl method ▪ Moisture content: Air-oven method ▪ Total solids in gruel ▪ Free fatty acids and peroxide value of extracted oil

Table 3.5-12 Case Study 2 Carbonated Soft Drinks

	Food Regulations (as at 1 st September 2006)	SS 62:1997
Name of the Standard	Soft drinks	Carbonated and non-carbonated beverages
Scope	<ul style="list-style-type: none"> ▪ Any flavoured drink ready for consumption without dilution ▪ Soda water, Indian or quinine tonic water, and any carbonated water whether flavoured or unflavoured; ▪ Ginger beer and any beverage made from any harmless herbal or botanical substance; ▪ Fruit drink or fruit crush. 	<ul style="list-style-type: none"> ▪ Fruit-flavoured carbonated beverages ▪ Flavoured carbonated beverages ▪ Beverages containing natural extracts ▪ Non-flavoured and unsweetened carbonated beverages
Description	<ul style="list-style-type: none"> ▪ Soft drink shall be any substance in liquid or solid form intended for sale as drink for human consumption, either with or without dilution 	<ul style="list-style-type: none"> ▪ Non-alcoholic carbonated beverages are beverages prepared from refined sugar, or syrup base, flavours and/or acidulants with or without fruit juices and are artificially charged with carbon dioxide in sealed packages.
Essential Composition and Quality Factor	<ul style="list-style-type: none"> ▪ Not specified 	<ul style="list-style-type: none"> ▪ Potable water - colourless, clear, odourless, pleasant to taste and safe for human consumption. ▪ Carbon dioxide - minimum purity of 99.5 (v/v) carbon dioxide. It shall be colourless and odourless and shall not contain any extraneous mineral or organic substances. ▪ Sugar - pure, white, crystalline solids giving a polarization reading of at least 99.8°S and should be free from moulds and yeasts. Sugar may be substituted with syrup base. ▪ Fruit concentrates - of a quality that gives a satisfactory flavour and colour ▪ Flavourings - natural flavourings are those obtained from fruits or plants by extraction, distillation, expression or any other suitable process. Artificial flavours are those obtained from chemical synthesis. ▪ Finish product - free from dust, dirt, extraneous fibres, hairs, rags, insect and rodent contamination, fragments of

		<p>cork or glass or other foreign matter.</p> <ul style="list-style-type: none"> ▪ Flavour - have a well-balanced and pleasant flavour. They shall be free from off-flavours and off-odours. ▪ Sugar content - min. 5 °Brix ▪ Fruit juice content - min. 5% ▪ Carbonation - 1.5 volume
Food Additives	<ul style="list-style-type: none"> ▪ May contain: ester gum: <100 ppm sucrose acetate isobutyrate: <300 ppm dimethyl polysiloxane: <10 ppm dimethyl dicarbonate: <250 ppm sulphur dioxide: <70 ppm benzoic acid: <160 ppm methyl or propyl para-hydroxy benzoate: < 160 ppm sorbic acid: <300 ppm quillaia: <200 ppm ▪ Subject to general requirements for food additives. 	<ul style="list-style-type: none"> ▪ Acidulants - Include citric acid, tartaric acid, malic acid, lactic acid, phosphoric acid, ascorbic acid, acetic acid, adipic acid, fumaric acid, hydrochloric acid, <u>dl</u>-lactic acid, <u>dl</u>-malic acid, <u>ortho</u>-phosphoric acid and L (+) tartaric acid. ▪ Permitted food colours, clouding agents, foaming agents, emulsifying and stabilising agents, and preservatives.
Contaminant	<ul style="list-style-type: none"> ▪ Arsenic (As): <0.1 ppm ▪ Lead (Pb): <0.2 ppm ▪ Copper (Cu): <2 ppm ▪ Tin (Sn): <250 ppm ▪ Cadmium (Cd): <0.2 ppm ▪ Antimony (Sb): <1 ppm ▪ Selenium (Se): <1 ppm 	<ul style="list-style-type: none"> ▪ Arsenic - <0.1 mg/kg ▪ Lead - <0.2 mg/kg ▪ Copper - <2 mg/kg
Hygiene	<ul style="list-style-type: none"> ▪ Package or container made with compounds known to be carcinogenic, mutagenic, teratogenic or any other poisonous or injurious substance. ▪ Mycotoxins: negative ▪ <i>Escherichia coli</i>: 20 per ml ▪ Total Count at 37°C for 48 hours: Not more than 100,000 per ml ▪ Sale of Food (Food Establishments) Regulations 	<ul style="list-style-type: none"> ▪ Processing site for carbonated and non-carbonated beverages shall be kept hygienically clean and shall be free from flies, bees, other insects and rodents. ▪ Total bacteria count: 200 per 20ml; 10 per ml ▪ Coliform count: Negative per 20ml; Negative per 10ml ▪ Yeast and mould count: Negative per 20ml; Negative per ml
Weight and Measures	<ul style="list-style-type: none"> ▪ Not specified 	<ul style="list-style-type: none"> ▪ Not specified
Labelling	<ul style="list-style-type: none"> ▪ The term “non-alcoholic” shall be reserved only for those products which contain not more than 0.5% (v/v) alcohol at 20°C. ▪ Any drink for human consumption without dilution which incorporates the name of a fruit, vegetable or flower in its name but does not use the juice of that fruit, vegetable or flower shall be labelled in 	<ul style="list-style-type: none"> ▪ Each package shall be legibly and indelibly marked as follows: a) Name of product; b) Name and address of manufacturer, packer or vendor and/or his registered trademark; c) Net volume; d) Batch or code number; e) Date marking.

	<p>the following manner: (a) (Name of fruit, vegetable or flower)-ade (b) (Name of fruit, vegetable or flower) flavoured drink; and (c) Imitation (name of fruit, vegetable or flower) drink.</p> <ul style="list-style-type: none"> ▪ Subject to general requirements for labelling ▪ Nutrition labelling is required only if a nutritional claim is made (regulation 8A of the Food Regulations) 	
Methods of Analysis and Sampling	<ul style="list-style-type: none"> ▪ Food additives, contaminants, microorganisms, mycotoxins 	<ul style="list-style-type: none"> ▪ Sugar content: hydrometer or refractometer method ▪ Gas volume ▪ Total colony count: Membrane filter enumeration method ▪ Coliforms: Membrane filter enumeration method ▪ Coliforms (for pulpy sample): MPN method ▪ Yeast & moulds: Membrane filter enumeration method ▪ Yeast & moulds (for pulpy sample): Spread plate method ▪ Arsenic, lead, copper: Atomic absorption spectrophotometric method

3.5.3 Philippines

The 1987 Constitution of the Philippines¹ stipulates that "the State shall establish and maintain an effective food and drug regulatory system and undertake appropriate health, manpower development, and research, responsive to the country's health needs and problems". Based on the above, Consumer Act of the Philippines² requires "to develop and provide safety and quality standards for consumer products" and give the enforcement power Department of Health to respect with foods and pharmaceuticals.

3.5.3.1 Food Administration

Administrative bodies mainly responsible to food safety and hygienic control are Department of Health and Department of Agriculture. Major roles of these departments are shown in Table 3.5-13.

Table 3.5-13

	Safety and Hygiene of Agricultural Products and Primary Processed Foods	Safety and Hygiene of Processed Foods
	Department of Agriculture (DA)	Department of Health (MOH)
Agricultural products	Bureau of Plant Industry (BPI)	Bureau of Food and Drugs (BFDA) The Law was amended in August 2009 to strengthen capability of BFDA and to augment human resources. Under new law, BFAD was renamed into Food and Drug Administration (FDA).
Marine Products	Bureau of Fisheries and Aquatic Resources (BFAR)	
Livestock products	Bureau of Animal Industry (BAI) National Meat Inspection Service (NMIS)	
	Bureau of Agricultural and Fisheries Product Standard (BAFPS)	

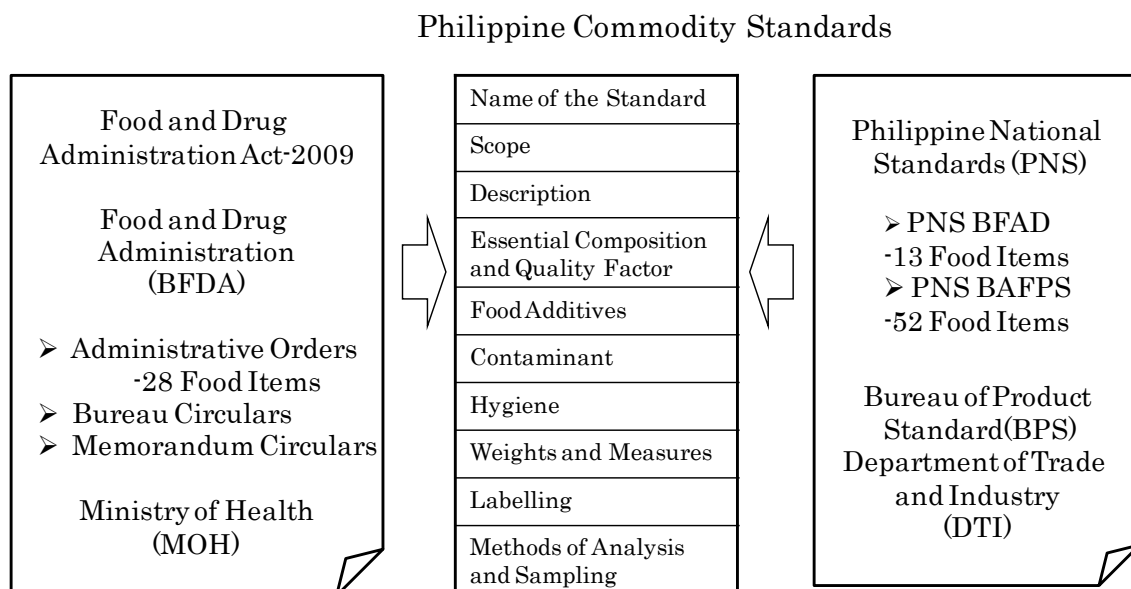
¹ http://www.gov.ph/index.php?option=com_content&task=view&id=200034&Itemid=26

² http://www.gov.ph/index.php?option=com_content&task=view&id=200034&Itemid=26

3.5.3.2 Food Law System and Commodity Standards

Chart of the relationship is shown in Figure 3.5-3.

Figure 3.5-3 Philippine Commodity Standards and relevant laws



(1) Food and Drug Administration Law³

It is a major food law of the Republic of the Philippines known as the Republic Act 9711 (2009 revised version of Republic Act 3720).

This Law was established with purpose of ensuring "safety and purity of food and cosmetics, and safety, efficacy and quality of drugs and medical devices intended for use of the public", and authorizes Department of Health (MOH) to enforce regulatory policy including measures for setting of evaluation method for quality of food standards and providing safe and clean foods.

Moreover, the Law transfers responsibilities of implementing this Law to Bureau of Food and Drugs (BFDA) and delegates the developing rules and regulations for safety of foods and drugs, and common standards and guidelines in the use of nutrition and health claims in foods and drugs.

Specific rules and regulations are implemented by publication of Administrative Order (AO), Bureau circulars (BC) or Memorandum Circulars (MC).

(2) Administrative Order and Circulars⁴

Administrative orders related to commodity standards are presented in Table 3.5-14

³ <http://www.bfad.gov.ph/cfc/pdf.cfm?pdfid=1232>

⁴ <http://www.bfad.gov.ph/default.cfm?CFID=89868&CFTOKEN=85282931#>

Table 3.5-14 Commodity Standards in publication of Administrative Order

Administrative Order	Title
AO 125 s. 1970	Regulation prescribing the Standard of Identity and Fill of Container for Canned Pineapple Juice (B-4.7-01)
AO 129 s. 1970	Regulation prescribing the Standard of Identity and Quality of Bagoong (Fish or Shrimp) (B-4.7-01)
AO 132 s. 1970	Regulation prescribing the Standard of Identity and Quality of Milk and Milk Products
AO 134 s. 1970	Regulation prescribing the Standard of Identity and Quality of Vinegar
AO 154 s. 1971	Regulation B-4 Definition and Standards of Identity of Foods: 4.14 Meat and Meat Products 4.14.01 Sausages
AO 200-A s. 1973	Regulation B-4 Definition and Standards of Identity of Foods: 4.5 Cheese and Cheese Products
AO 228 s. 1974	Regulation B-4 Definition and Standards of Identity of Foods: 4.17 Nut Products 4.17.01 Peanut Butter
AO 230 s. 1974	Regulation B-4 Definition and Standards of Identity of Foods: 4.15 Fats and Oils 1.15.01 Shortening
AO 231 s. 1974	Regulation B-4 Definition and Standards of Identity of Foods: 4.15 Fats and Oils 4.15.02 Lard
AO 232 s. 1974	Regulation B-4 Definition and Standards of Identity of Foods: 4.18 Margarine
AO 233 s. 1974	Regulation B-4 Definition and Standards of Identity of Foods: 4.9 Condiments, Sauces, Seasoning 4.9.01 Tomato Catsup (Catsup)
AO 235 s. 1975	Regulation B-4 Definition and Standards of Identity of Foods: 4.6 Dressings for Food 4.6.01 Mayonnaise (Mayonnaise Dressing and Mayonnaise Salad Dressing)
AO 236 s. 1975	Regulation B-4 Definition and Standards of Identity of Foods: 4.6 Dressings for Food 4.6.03 Salad Dressing
AO 237 s. 1975	Regulation B-4 Definition and Standards of Identity of Foods: 4.6 Dressings for Food 4.6.02 French Dressing
AO 238 s. 1975	Regulation B-4 Definition and Standards of Identity of Foods: 4.13 Jams (Fruit Preserves) and Jellies 4.13.01 Jams (naming the fruit)
AO 239 s. 1975	Regulation B-4 Definition and Standards of Identity of Foods: 4.13 Jams (Fruit Preserves) and Jellies 4.13.02 Jellies (naming the fruit)
AO 243 s. 1975	Regulation B-4 Definition and Standards of Identity of Foods: 4.18 Margarine
SAO 257 s. 1976	Standardization of Rum
SAO 258 s. 1976	Standardization of Vodka
SAO 259 s. 1976	Standardization of Whiskies
AO 325 s. 1977	Regulation B-4 Definition and Standards of Identity of Foods: 4.9 Condiments, Sauces and Seasonings 4.9.01 Standard of Identity and Quality for Patis
SAO 356 s. 1978	Standardization of Beer
SAO 358 s. 1978	Standardization of Brandies
AO 123-A s. 1985	Standard for Banana Sauce
AO 136-A s. 1985	Standard of Instant Coffee
AO 136-B s. 1985	Standard for Soluble Coffee with Added Carbohydrates
AO 18-A s. 1993	Standard of Quality and Requirement for the Processing, Packaging and Labeling of Bottled Drinking Water
AO 2005-0018	Philippine National Standards on Ethnic Food Products

As they are relatively limited coverage, the Philippines is half way to standardization. When prompt action is needed, relevant administrative bodies coordinate to develop mandatory standards within the framework of Philippine national standards described below. Examples of composition of commodity standards set by AO and BC are shown as follows.

Food Additives	•BC 2006-16: Updated List of Food Additives
Hygiene	•AO 153s. 2004: Guidelines, Current Good Manufacturing Practices in Manufacturing, Packing, Repacking or Storage of foods. •BC 01-as. 2004: Guidelines for the Assessment of Microbiological Quality of Processed Foods
Labeling	•AO 16s. 1979: Date Marking of Prepackaged Foods. •AO 88-Bs, 1984: Rules and Regulations Governing the Labeling of Prepackaged Food Products Distributed in the Philippines •BC No. 9s 1999: Labeling of prepackaged Processed Meat Products •BC 2007-002: Guidelines in the use of Nutrition and Health Claims in food
Weight and Measures	•BC 6As. 1988: Permissible Net Content Variation in Prepackaged Food

(3) Philippine National Standards (PNS)

From the standpoint of commodity standards, Philippine National Standards (PNS) set by Department of Trade and Industry (DTI) and Department of Product Standard (DPS) occupies important place. It is within the framework of PNS for all industries pursuant to ISO. Philippine National Standards is basically voluntary standard, but, certification mark can be labeled by obtaining official certification. Format of the standard are same as that of Codex Standard. Comparison is shown in Table 3.5-15.

Table 3.5-15 Format of Philippine National Standard

PHILIPPINE NATIONAL STANDARD PNS/BFAD 11:2007 ICS 67.160.20 Citrus beverage products – Specification	
Contents	Table1 Food additives for fruit juices Annexes
1 Scope	1 Varieties of Philippine citrus fruits utilized in the production of Philippine citrus beverage products
2 Definition of terms	2 Measurement of pH
3 Description of products	3 Determination of titrable acidity
4 Essential composition and quality factors	4 Determination of total soluble solids
5 Food additives	5 Determination of alcohol in fruits products
6 Contaminants	
7 Hygiene	
8 Weight and measures	
9 Labelling	
10 Methods of sampling and analysis	

Philippine National Standards in ICS code 67 (Food technology) related to food are totaly 89 standards. Twenty one standards with PNS BFAD which is standard number set by DTI and DPS together with Bureau of Food and Drugs (BFDA) are mandatory standards (Table 3.5-16). There are 13 commodity standards excluding standards for processing.

Table 3.5-16

Standard Number	Title
PNS-BFAD 01:2005	Ethnic food products – Dry base mixes for soups and sauces
PNS-BFAD 02:2005	Ethnic food products – Sweet preserves
PNS-BFAD 03:2006	Recommended code of practice for the processing and handling of sweet preserves
PNS-BFAD 04:2006	Ethnic food products – Dried, salted fish – Specification
PNS-BFAD 05:2006	Recommended code of practice for the processing and handling of dried fish
PNS-BFAD 06:2006	Thermally processed fish products – Specification
PNS-BFAD 07:2006	Recommended code of practice for the processing and handling of thermally processed fish products
PNS-BFAD 08:2007	Fermented milks – Specification
PNS-BFAD 09:2007	Mango beverage products – Specification
PNS-BFAD 10:2007	Recommended code of practice for the processing and handling of mango beverage products
PNS-BFAD 11:2007	Citrus beverage products – Specification
PNS-BFAD 12:2007	Recommended code of practice for the processing and handling of citrus beverage products
PNS-BFAD 13:2007	Banana chips – Specification
PNS-BFAD 14:2007	Recommended code of practice for the processing and handling of banana chips
PNS-BFAD 15:2007	Dried mango products – Specification
PNS-BFAD 16:2007	Dried tropical fruits – Specification
PNS-BFAD 17:2007	Recommended code of practice for the processing and handling of dried tropical fruits
PNS-BFAD 18:2008	Flour sticks (pancit canton) – Specification
PNS-BFAD 19:2008	Recommended code of practice for the processing and handling of flour sticks (pancit canton)
PNS-BFAD 20:2009	Sugar cane wine (basi) – Specification
PNS-BFAD 21:2009	Recommended code of practice for the processing and handling of sugar cane wine (basi)

Also, there are some standards for fresh foods attached PNS BEAPS standard number set with cooperation of Bureau of Agricultural and Fisheries Product Standard (BAFPS). Table 3.5-17 shows standards for specifications, grade and classification of specific food, and these are mandatory standards as well.

Table 3.5-17

Standard Number	Item
PNS/BAFPS 01:2003	Coffee beans (green)
PNS/BAFPS 07:2003	Organic agriculture
PNS/BAFPS 08:2004	Banana Saba and Cardaba
PNS/BAFPS 09:2004	Pineapple
PNS/BAFPS 10:2004	Corn grains
PNS/BAFPS 11:2004	Pummelo
PNS/BAFPS 12:2004	Durian
PNS/BAFPS 13:2004	Mango
PNS/BAFPS 14:2003	Bulb Onions
PNS/BAFPS 15:2004	Corn grits
PNS/BAFPS 16:2005	Broccoli
PNS/BAFPS 17:2005	Cabbage
PNS/BAFPS 18:2005	Cauliflower
PNS/BAFPS 19:2005	Lettuce

PNS/BAFPS 26:2006	Tomato
PNS/BAFPS 29:2008	Dried cassava chips and granules
PNS/BAFPS 30:2005	Calamansi
PNS/BAFPS 31:2006	Mangosteen
PNS/BAFPS 33:2005	Papaya
PNS/BAFPS 34:2005	Pili nuts (shelled)
PNS/BAFPS 35:2005	Table eggs
PNS/BAFPS 38:2006	Carrots
PNS/BAFPS 52:2007	Eggplant
PNS/BAFPS 56:2007	Watermelon
PNS/BAFPS 57:2007	Fresh mandarin

3.5.3.3 Case Study

(1) Instant Noodles

Pancit Conton (PNS BFAD 18:2008) which are like instant pan-fried noodles are taken (Table 3.5-18) as the similar food,

(2) Carbonated Soft Drinks

No standard covers only carbonated soft drinks like in Japan. There are National Standards for citrus beverage products (PNS BFAD 11: 2007) which can be applied for wide range of products like Japanese standards for carbonated soft drinks (Table 3.5-19).

(3) Prepared Frozen Foods

While there are standards for frozen squid, frozen shrimp and frozen fish, no standard more like Japanese standard for prepared frozen food.

Table 3.5-18 Case Study1 Instant Noodles

Item \ Standard	PNS/BFAD 18:2008
Name of the Standard	Flour sticks (<i>pancit canton</i>)
Scope	<ul style="list-style-type: none"> ▪ Processed flour sticks (<i>pancit canton</i>) for human consumption
Description	<ul style="list-style-type: none"> ▪ Flour sticks or 'pancit canton' are molded and fried noodle strands, which can be consumed with or without prior cooking preparation, made from wheat flour, singly or in combination with other flours and/or starches, water and salt with or without added optional ingredients.
Essential Composition and Quality Factor	<ul style="list-style-type: none"> ▪ Basic Ingredients: wheat flour; potable water; salt; cooking oil ▪ Optional Ingredients: other flours and starches; fresh eggs or egg powder; fresh or powdered fruit and vegetables; seasoning and condiments. ▪ General requirements – <ul style="list-style-type: none"> Moisture content: <8%; Free fatty acids: 0.5% (as oleic acid); Sensory properties: uniform size of noodle strands with acceptable color, no rancid odor and taste and crispy texture. ▪ Types of defects –

	<p>Foreign matter: any matter which has not been derived from the components or constituents of ingredients used in the product; does not pose a threat to human health and can be recognized without magnification or is present at a level determined by a method including magnification that indicates non-compliance with good manufacturing and sanitation practices.</p> <p>Appearance: (a) Brownish or blackish specks or discoloration that affects > 5% of the weight of the sample unit after manufacture; (b) Loose or broken noodle strands present in weights >5 % of the weight of the sample unit after manufacture.</p> <p>Odor and flavour: (a) Objectionable odor and flavor indicative of deterioration or contamination (like rancidity, fermentation or taints) on uncooked and cooked noodles; (b) Pronounced burnt odor on uncooked and cooked noodles.</p>
Food Additives	<ul style="list-style-type: none"> ▪ In accordance to BFAD Bureau Circular No. 2006-016, the Codex Alimentarius Commission and/or authority for these products. ▪ Permitted food additives to be used: <ul style="list-style-type: none"> <u>Acid regulator</u> NaOH – GMP <u>Antioxidant</u> BHA – Max: 100 mg/kg; BHT – Max: 200 mg/kg; Tocopherol – GMP <u>Color</u> FD&C Yellow #5 (Tartrazine) – Max: 300 mg/kg; FD&C Yellow #6 (Sunset Yellow) - Max: 300 mg/kg <u>Flour treatment agent</u> Phosphates (as Na or K Phosphates) – Max: 2,200 mg/kg <u>Raising agent/stabilizer</u> Na₂CO₃ – Max: 2,600 mg/kg; K₂CO₃ – Max: 2,600 mg/kg ▪ Carry-over of other food additives not listed shall be allowed provided they are approved by BFAD regulation and in accordance to Section 5.2 of the “Codex Principles Relating to the Carry-Over of Food Additives into Foods (CAC/Volume 1 1991)”.
Contaminant	<ul style="list-style-type: none"> ▪ Not specified
Hygiene	<ul style="list-style-type: none"> ▪ Prepared and handled in accordance to “ Codex Recommended International Code of Practice – General Principles of Food Hygiene” and/or “BFAD A.O. No. 153 s. 200 – Guidelines on the Current Good Manufacturing Practices in Manufacturing , Packing, Repacking or Holding Food” and processed according to the “Recommended Code of Practice for the Processing of Flour Sticks (<i>Pancit Canton</i>) (PNS 19:2008)”. ▪ When tested by appropriate methods of sampling and examination: <ul style="list-style-type: none"> a) free from filth that may pose a hazard to health; b) free from parasites which may represent a hazard to health; c) not contain any substance originating from microorganisms in amounts which may represent a hazard to health; and d) free from spoilage or pathogenic microorganisms capable of survival and multiplication under normal storage conditions ▪ The product shall be packed in suitable hygienic primary and secondary packages that will maintain its quality during storage and transport.
Weight and Measures	<ul style="list-style-type: none"> ▪ The average net weight of sample unit may exceed declared net weight; however, no individual package shall be <95% of the declared net weight.
Labelling	<ul style="list-style-type: none"> ▪ Labelling of retail packages/container – each retail container shall be labelled and marked with the information according to BFAD Labelling Regulations and shall contain the following information: <ul style="list-style-type: none"> a) The name of the product. The name of the product shall be

	<p>“Flour Sticks” or “Pancit Canton”. The product may be called by other common names like: “Wheat Flour Sticks”, “Wheat Noodles”, “Wheat Flour Noodles”, “C(K)anton Noodles” or “Panc(s)it C(K)anton Noodles”, provided such name is accepted in the country of distribution.</p> <p>b) The Name and address of either the manufacturer, packer, distributor, importer, exporter or vendor of the food.</p> <p>c) The complete list of ingredients and food additives used in the preparation of the product in descending order of proportion.</p> <p>d) The net content by weight in metric system. Other systems of measurement required by importing countries shall appear in parenthesis after metric system unit.</p> <p>e) The words “Best/Consume Before”/“Use by date”, indicating end of period at which the product shall retain its optimum quality attributes at define storage conditions.</p> <p>f) Lot identification marked in code identifying product lot.</p> <p>g) The words “Product of the Philippines” or similar expressions, or the country of origin if imported.</p> <p>h) Additional requirements – a pictorial representation of the product(s) on the label should not mislead the consumer with respect to the product so illustrated.</p> <ul style="list-style-type: none"> ▪ Labelling of non-retail, bulk containers – The name of the product, lot identification code and the name and address of the manufacturer or packer shall appear in the container. However, the name and address of the manufacturer may be replaced by identification marks provided that such mark is clearly identified with accompanying documents. ▪ Nutrition labelling – Nutrition labelling shall conform to established regulations by the BFAD.
Methods of Analysis and Sampling	<ul style="list-style-type: none"> ▪ Method sampling – shall be in accordance with the FAO/WHO Codex Alimentarius Sampling Plans for Pre-packaged Foods (CAC/RM 42-1969) ▪ Determination of moisture – according to method of AOAC (2005, 18th edition) using the Oven Method ▪ Determination of free fatty acids (FFA) – according to the method of AOAC (2005, 18th edition) using the Titrimetric Method ▪ Determination of net weight

Table 3.5-19 Case Study 2 Carbonated Soft Drinks

Standard Item	PNS/BFAD 11:2007
Name of the Standard	Citrus beverage products
Scope	<ul style="list-style-type: none"> ▪ Philippine <i>calamansi</i> (<i>Microcarpa Bunge</i>) and <i>dalandan</i> (<i>Citrus aurantium</i>) beverages including ready-to-drink (RTD) beverages made from sound and mature <i>calamansi</i> or <i>dalandan</i> preserved exclusively by physical means. Preservation by physical means does not include ionizing radiation. Other citrus cultivars may also be used provided they conform to the standard stated herein.
Description	<ul style="list-style-type: none"> ▪ Carbonated drink (soda) – A ready-to-drink beverage prepared by mixing carbonated water and sweetening agent or agents with citrus sugar-concentrate or extract.
Essential Composition and Quality Factor	<ul style="list-style-type: none"> ▪ Basic Ingredients – Citrus: <i>Calamansi</i> or <i>dalandan</i> – fruit to be used shall be fresh, sound, clean and mature from any cultivated variety suitable to the characteristics of the fruits of <i>Microcarpa Bunge</i> or <i>Citrus aurantium</i> variety. Other cultivars of citrus may also be used. Potable water: Water fit for human consumption. Sweetening agent: One or more of the sugars, honey, high intensity sweeteners or artificial sweeteners. Other ingredients: Other food-grade ingredients may be added. ▪ General requirements – the citrus beverage product shall have the characteristic colour, aroma and flavour of the variety of citrus fruit from which it is made and shall be free from objectionable sensory characteristics. ▪ pH and titrable acidity – the pH of the extract for <i>calamansi</i>: >2.0, <i>dalandan</i>: >2.50; titrable acidity (as % citric acid) for <i>calamansi</i>: >4.5%, <i>dalandan</i>: >0.7% ▪ Soluble solids – the soluble solids content of the extract (exclusive of added sweetening agent/s) for <i>calamansi</i>: >6.0% m/m, for <i>dalandan</i>: >7.0% m/m, as determined by refractometer at 20°C, uncorrected for acidity and read as °Brix on the International Sucrose Scales. ▪ Sweetening agent – one or more of the sugars, honey, high intensity sweeteners and artificial sweeteners may be added in amounts according to regulations set by BFAD, the Codex Alimentarius Commission and/or authority for these products. ▪ Ethanol content – the ethanol content shall not exceed 3 g/kg. ▪ Volatile acids – traces of volatile acids may be present. ▪ Sensory properties – the product shall have the characteristic colour, aroma and flavour of the citrus fruit (<i>calamansi</i> or <i>dalandan</i>) used. ▪ Types of defects – Foreign matters: any matter, which has not been derived from the citrus fruit (<i>calamansi</i> or <i>dalandan</i>), does not pose a threat to human health and is readily recognized without magnification or is present at a level determined by magnification method or any equivalent methods that indicates non-compliance with good manufacturing practices and sanitation practices. Odour/flavour/colour: a sample unit affected by objectionable odours or flavours indicative of decomposition and unacceptable discolouration due to product deterioration.
Food Additives	<ul style="list-style-type: none"> ▪ In accordance to BFAD Bureau Circular No. 2006-016, the Codex Alimentarius Commission and/or authority for these products. Permitted food additives to be used: <u>Acid regulator</u> Citric acid; malic acid; calcium carbonate; adipates <u>Anticaking agent</u>

	<p>Calcium aluminium silicate (synthetic); microcrystalline cellulose; aluminium silicate; carnauba wax</p> <p><u>Antioxidant</u> Ascorbic acid; calcium ascorbate; erythorbic acid; potassium ascorbate; sodium ascorbate; sodium erythroate</p> <p><u>Color</u> Carotenoids; chlorophylls, copper complexes; curcumin; riboflavin; sunset yellow; tartrazine</p> <p><u>Preservatives</u> Benzoates; hydrobenzoates; sorbates; sulphites; carbon dioxide; phosphates; EDTA</p> <p><u>Processing aids</u> a. Antifoaming agents – polydimethylsiloxane b. Clarifying agents/filtration aids/flocculating agents – adsorbent clays; adsorbent resins; activated carbon (only from plants); bentonite; cellulose; chitosan; colloidal silica; diatomaceous earth; gelatine (from skin collagen); ion exchange resins (cation and anion); kaolin; perlite; polyvinylpyrrolidone; rice hulls; silicasol; tannin c. Enzyme preparations – pectinases (for breakdown of pectin); proteinases (for breakdown of proteins); amylases (for breakdown of starch); cellulases (limited use to facilitate disruption of cell walls) d. Packing gas – nitrogen, carbon dioxide</p> <p><u>Stabilizer/thickener</u> Calcium chloride; carob bean gum; carrageenan; gellan gum; guar gum; gum arabic; karaya gum; lactic and fatty acid esters of glycerol; pectins; potassium alginate; sodium alginate; tara gum; tragacanth gum; xanthan gum; agar; konjac flour; sodium carboxymethylcellulose</p> <p><u>Sweetener</u> Acesulfame potassium; aspartame; saccharin; sucralose</p>
Contaminant	<ul style="list-style-type: none"> ▪ Pesticide residues – amount of residue shall comply with those maximum residue limits for pesticides established by the Codex Alimentarius Commission and/or authority for these products. ▪ Heavy metal contamination – the citrus beverage products covered by the provisions of this standard shall comply with those maximum residue levels for heavy metal contamination established by the Codex Alimentarius Commission and/or authority for these products.
Hygiene	<ul style="list-style-type: none"> ▪ Prepared and handled in accordance with the appropriate sections of the “Codex Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1 -1969, Rev. 4-2003)” and/or “BFAD A.O. No. 153 s.2004 – Guidelines, Current Good Manufacturing Practices in Manufacturing, Packing, Repacking or Holding Food” and processed according to the “Recommended Code of Practice for the Processing and Handling of Citrus Beverage Products (PNS/BFAD 12:2007)”. ▪ When tested by appropriate methods of sampling and examination: <ul style="list-style-type: none"> a) free from filth that may pose a hazard to health; b) free from parasites which may represent a hazard to health; c) not contain any substance originating from microorganisms in amounts which may represent a hazard to health; d) free from spoilage or pathogenic microorganisms capable of survival and multiplication under normal storage conditions; and e) free from container integrity defects which may compromise the hermetic seal
Weight Measures	<p>and</p> <ul style="list-style-type: none"> ▪ Minimum fill – the citrus beverage product shall occupy not less than 90% of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C, which the sealed container will hold when completely filled. A container that fails to meet the requirement for minimum fill (90% container capacity) shall be considered “slack filled”.

Labelling	<ul style="list-style-type: none"> ▪ Each container shall be labelled and marked with the following information in accordance with current BFAD's Labelling Regulation: <ul style="list-style-type: none"> a) The name of the product shall be "[Name of citrus fruit + Type of beverages product]" (ex. <i>Calamansi Juice; Dalandan Juice Powder</i>); b) Products using artificial sweetener/s shall have statement/s referring to its low and/or reduced caloric value and the possibility of hypersensitivity to some of its components; c) The complete list of ingredients and food additives used in the preparation of the products in descending order of proportion; d) The net quantity of content by weight in the metric system. Other systems of measurement required by importing countries shall appear in parenthesis after the metric system unit; e) The name and address of the manufacturer, packer and/or distributor of the food; f) Open date marking: The word "Best/Consume before"/"Use by date", indicating end of period at which the product shall retain its optimum quality attributes at defined storage conditions; g) Lot or code number identifying product lot; h) The words "Product of the Philippines", or the country of origin if imported; i) Additional requirements – A pictorial representation of fruit(s) on the label should not mislead the consumer with respect to the fruit so illustrated; j) Direction for use should be indicated in the label; k) Storage instructions – where the citrus beverage product requires to be kept under conditions of refrigeration, there shall be information for storage and, if necessary, thawing of the product. Where practicable, storage instructions should be in close proximity to the open date marking; ▪ Nutrition labelling – nutrition labelling shall conform to established regulations of BFAD.
Methods of Analysis and Sampling	<ul style="list-style-type: none"> ▪ Measurement of pH – according to AOAC Official Methods of Analysis, Method No. 981.12, 16th ed., 1995. ▪ Determination of titrable acidity – According to AOAC Official methods of Analysis No. 942.15, 16th ed., 1995. ▪ Determination of total soluble solids – According to AOAC Official methods of Analysis No. 932.14C, 16th ed., 1995. ▪ Determination of alcohol in fruit products – According to AOAC Official methods of Analysis No. 920.150, 16th ed., 1995 ▪ Method of sampling – Sampling shall be in accordance with the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods – CAC/RM 42-1969, Codex Alimentarius Volume 13, 1994. ▪ Determination of lead using atomic absorption spectrophotometer – According to AOAC Official methods of Analysis No. 972.25, 16th ed., 1995. ▪ Determination of tin using atomic absorption spectrophotometer – According to AOAC Official methods of Analysis No. 985.16, 16th ed., 1995.

3.5.4 Summary

Three countries investigated in this project appear to have common intentions to promote legislative harmonization within ASEAN countries, and to strengthen harmonization with the international community such as WTO, through developing food law systems pursuant to Codex and ISO. As exporting countries, improving safety and quality of agricultural products, marine products and livestock products become national issue.

4.. Summarized Conclusion

With respect to Korean standards for three selected foods, there were no significant differences between Food Code and KS standards. Restricted use of food additives which is seen in some JAS standards was not seen. Standards for food safety covered by Food Code are considered to be rational. KS standards for analytical methods are set in more detail. Superior quality defined by KS standards appears to be supported by GMP standpoint based on rigorous analysis. The other standards is required to be compared, also "procedure standards" which define analytical methods should be investigated. From view point of harmonization, it is important to compare with analytical methods defined in Japan and international standards to clarify characteristics of KS standards.

We compared Chinese GB standards with Codex Standards for instant noodles, carbonated soft drinks and prepared frozen foods taken in case studies. Based on the results, relatively good consistency was shown. As it has not been long since Food Safety Law went into effect, it is likely to exit legal gray areas in China where standardization has just started. We need to focus on future trends toward standardization. National Standards which were not investigated in this project remains as a big issue in the future. In addition, information on food standards, which is important to grasp law system of food standards, was just collected from confirmation on the web site of Standardization Administration of China. Moreover, English versions of the standard titles were prepared, while there was no information on the content other than in Chinese. Some measures should be taken to resolve these problems.

Three ASEAN countries (Malaysia, Singapore and Philippines) investigated in this project appear to have common intentions to promote legislative harmonization within ASEAN countries, and to strengthen harmonization with the international community including WTO, through developing food law systems pursuant to Codex and ISO. As exporting countries, improving safety and quality of agricultural products, marine products and livestock products become national issue.

5. Workshop

A workshop was held together with persons from ILSI branches who were in charge of this investigation from target countries, and the results were shared. Over 130 participants from domestic food companies joined the

workshop. This indicated high interests or concerns among Japanese industries concerning food law systems in East Asian regions (attached is the handouts for the workshop).