

平成 21 年度食品産業競争力強化対策事業関係補助金
農林水産省総合食料局関係事業
東アジア食品産業海外展開支援事業

「東アジアの食品等の規格基準、分析方法の調査と結果の共有化」報告書

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非営利活動法人 国際生命科学研究機構 (ILSI Japan)

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ILSI Korea
ILSI Focal Point in China
ILSI Southeast Asia Region

1. 調査目的

国内食品市場の量的飽和と成熟化に直面している日本の食品産業の経営体質の強化を図るためには、人口増加と高い経済成長により魅力的な市場を形成しつつある東アジア地域における事業の展開を促進する取り組みが必要である。

これまで情報不足、理解不足等から躊躇していた日本の食品企業に対して、東アジア各国における食品の規格基準や残留農薬の分析方法等に関する情報を、コーデックス規格等国際基準との整合性を含めてデータベース化、提供することにより、日本の食品企業の東アジア地域内への新規参入あるいは現地での円滑なビジネス展開を可能とし、促進することが出来る。

日本国内あるいは当該国においてワークショップ、研修会、個別相談会等を開催して調査結果を公開、活用することにより、日本の食品企業による東アジア地域内への新規参入の意欲を高め、実際の行動に結びつけることを可能することを目的として本調査を実施した。

2. 調査概要

農林水産省の「東アジア食品産業活性化戦略」に沿い、東アジア地域での食材、食品の流通を拡大するため、これら地域における食品等の規格基準、その分析法や残留農薬

等の分析方法が東アジア地域内で統一あるいは調和されていることが望まれる。本提案事業では、東アジア地域の主要な国々での主たる食品等の規格基準や残留農薬基準およびそれらの分析方法を調査し、それらの相違点および今後、統一あるいは調和を図るための課題を抽出する。本調査結果は、調査対象とする当該国の調査専門家の協力を得ながら実施し、その結果はワークショップ等で共有し、課題の理解を深める。

2.1 調査対象国：

東アジア地域諸国における人口等市場性、日本の進出企業動向、今後の将来性等から、特に韓国、中国、マレーシア、シンガポール、フィリピン、インドネシア、タイ、ベトナムの8か国を選択した。しかしながら英語による情報収集の時間的困難さから、インドネシア、タイ、ベトナムの3か国については、十分な調査が出来なかったことから、可能であれば次年度への継続調査として、本調査は韓国、中国、マレーシア、シンガポール、フィリピンの5か国となった。

2.2 調査対象食品（群）：

プログラム設計に際し、当面パイロットプログラムとして、比較的共通性が高いと考えられた、即席めん、炭酸飲料および調理済み冷凍食品を対照とした。なお食品添加物については、今後の調査のための情報収集に留めた。

2.3 実施方法：

本調査事業は、特定非営利活動法人 国際生命科学研究機構（ILSI Japan）が中心となり、ILSI の国際的ネットワーク、特に ILSI Korea（韓国）、ILSI Focal Point in China（中国）および ILSI Southeast Asia Region（ASEAN 諸国）、に参加を求め、具体的には次の手順で調査を進めた。

- (1) ILSI Japan がプログラムの設計を行い、調査する食品等の選択、その食品等の規格・基準を記述する調査表を作成した。
- (2) ILSI Japan はプログラムと調査表を関連 ILSI 支部に送付し、当該国の条件によっては調査表を修正し、調査結果を調査表に記入した。
- (3) ILSI Japan は、調査表を集計、解析した。
- (4) 当該各国の調査担当者と共にワークショップを開き、結果を共有した。

2.4 実施体制：

ILSI Japan では、ILSI Japan の一組織である「国際協力委員会」内にそれぞれの食品分野（麺製品、飲料、冷凍食品、食品添加物等）を代表する会員からなるプロジェクトチームを立ち上げ、プログラム設計、調査対象食品の選択、規格基準の項目を提案、協力 ILSI 支部（韓国、中国、東南アジア）、当該国との調整の後、最終決定した。

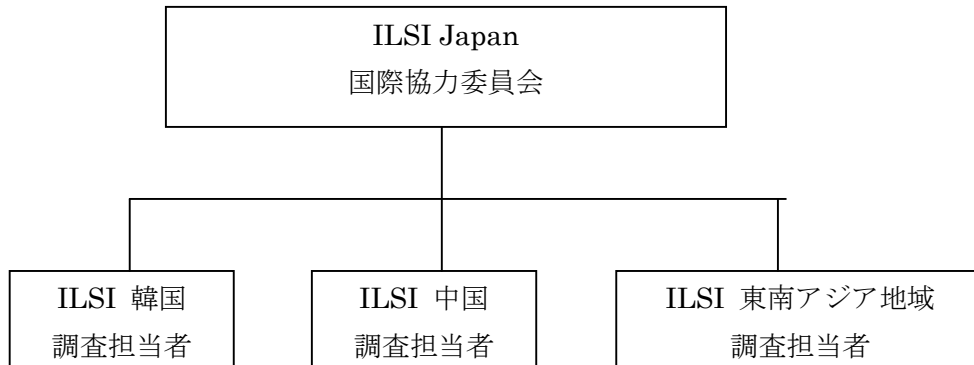
同プロジェクトチームは、ILSI の国際ネットワークを利用し、特に以下の ILSI 傘下の支部の協力を得て、調査事業を進めた。

ILSI 日本支部： 日本

ILSI 韓国支部： 韓国

ILSI 中国支部： 中国（香港、台湾は含まない）

ILSI 東南アジア地域支部： マレーシア、シンガポール、フィリピン



2.5. 実施スケジュール：

本提案事業は、概略次のスケジュールに沿って進められた。

予備調査、プログラム設計、調査表開発：	平成 21 年 6 月～8 月
調査表の記述：	平成 21 年 9 月～12 月
調査表の集計、課題の抽出：	平成 22 年 1 月～2 月
ワークショップの開催：	平成 22 年 3 月
報告書の作成：	平成 22 年 3 月
調査プログラム全体の期間：	10 か月

3. 各国の調査結果

3.1 コーデックス委員会における個別食品規格

調査実施にあたり、「食品等の規格基準」の定義・内容等については、各国一定の共通理解が得られる、コーデックス委員会¹が策定する、個別食品規格（Commodity Standards）を基準とすることとした。

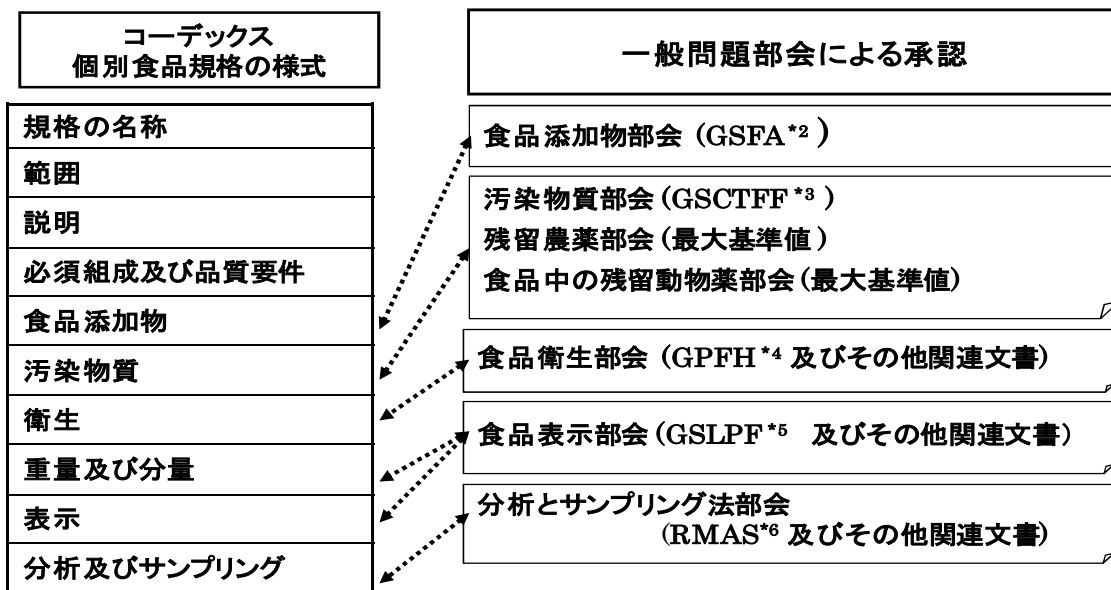
3.1.1 コーデックス委員会における個別食品規格策定方法

図 3.1-1a および 1b にコーデックス委員会における個別食品規格と各食品共通の一般規格（General Standards）との関連を示した。

コーデックス委員会は機能的に、個別食品規格を検討する部会（Commodity Committee）と食品全般に水平的に適用される一般問題を検討する部会（General Subject Committee）に分けられる。個別食品規格の検討部会で策定される規格は、一般問題部会での食品全般からの観点で検討、承認が必要となっている。

図 3.1-1a

コーデックス個別食品規格の作成*1

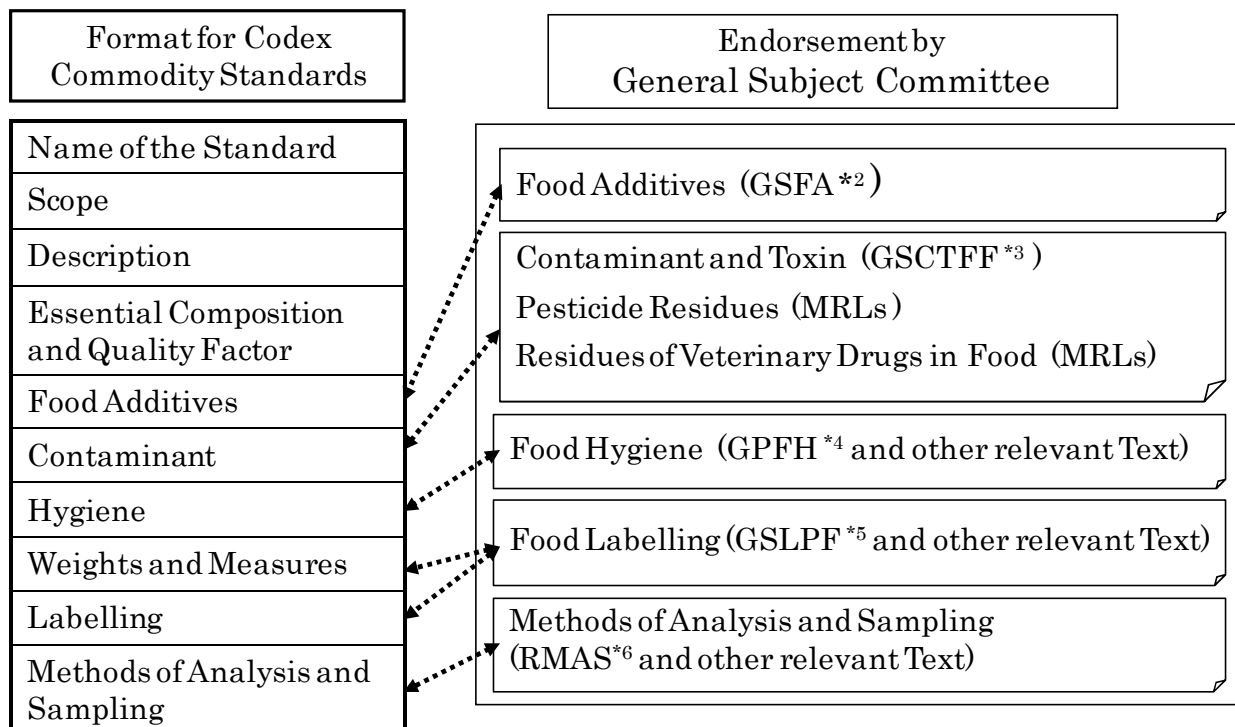


- *1 Codex Procedural Manual: コーデックス手続きマニュアル(第3節:規格と関連文書の作成)
- *2 Codex Stan 192-1955: 食品添加物一般規格
- *3 Codex Stan 193-1995: 食品及び飼料中の汚染物質一般規格
- *4 CAC/RCP1-1969: 食品衛生一般原則
- *5 Codex Stan 1-1985: 包装食品表示一般規格
- *6 Codex Stan 234-1999: 推奨される分析及びサンプリング方法

¹コーデックス委員会 (Codex Alimentarius Commission) は、FAO/WHO 合同食品規格計画の実施機関として、1962年に、FAO (国連食糧農業機関) とWHO (世界保健機関) が合同で設立した国際政府間組織で、その設置目的は、国際食品規格の策定を通じて、消費者の健康を保護するとともに、公正な食品の貿易を確保することです。コーデックス委員会が策定した食品規格は、WTO (世界貿易機関) の多角的貿易協定のもとで、国際的な制度調和を図るものとして位置付けられている。 http://www.codexalimentarius.net/web/index_en.jsp

図 3.1-1b

Elaboration of Codex Commodity Standards*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

個別食品規格の作成方法はコーデックス手続きマニュアル²（Codex Procedural Manual）に、規格の様式、規格を構成する各項目の記載要件、一般問題部会との関連等について、詳細に規定されている。

3.1.2 コーデックスでの個別食品規格

2009年7月現在、コーデックス委員会では表 3.1-2 にある 200 品目の個別食品規格が制定されている。

表 3.1-2 は規格の初版成立時期に概ね従って付けられた規格ナンバー順で記載されており、個別食品規格の全体における設定状況の俯瞰には不便である。食品添加物一般規格³（GSFA）の ANNEX B に食品添加物の使用基準等の策定等に使用される食品分類項目と分類項目個々の説明がある食品分類システム（Food Category System : FCS）があり、ANNEX C にはその分類体系と策定された個別食品規格との相互参照表がある。こ

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

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

れらが全体の俯瞰には役立つ。

表 3.1-2 コーデックス個別食品規格一覧

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
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	1981

	Consommés	
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 Liquor) 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	1999

	(Citrus grandi)	
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

表 3.1-3 に ANNEX B の分類項目、表 3.1-4 に ANNEX C の相互参照表を記載する。

表 3.1-3 コーデックス規格食品分類表(Food Category System)

01.0	乳製品、但し食品分類 02.0 の製品（油脂及び脂肪乳化物）は除く
01.1	乳及び乳飲料
01.1.1	乳及びバターミルク
01.1.1.1	滅菌乳及び UHT やぎ乳を含む乳
01.1.1.2	バターミルク（プレーン）
01.1.2	フレーバー入り、及び/又は、発酵処理した乳飲料（例えばチョコレート乳、ココア、エッグノグ）
01.2	食品分類 01.1.2（乳飲料）を除く発酵及びレンネット処理乳製品（プレーン）
01.2.1	発酵乳（プレーン）
01.2.1.1	発酵後非加熱
01.2.1.2	発酵後加熱処理
01.2.2	レンネット処理乳
01.3	練乳（プレーン）及び類似製品
01.3.1	練乳（プレーン）
01.3.2	飲料ホワイトナー
01.4	クリーム及び類似製品
01.4.1	滅菌したクリーム
01.4.2	滅菌、UHT、泡立ち又は泡立て、脂肪を低減したクリーム
01.4.3	凝乳クリーム
01.4.4	クリーム類似製品
01.5	粉乳及び粉末クリーム（プレーン）
01.5.1	粉乳及び粉末クリーム
01.5.2	粉乳及び粉末クリーム類似製品
01.6	チーズ及び類似製品
01.6.1	未熟成チーズ
01.6.2	熟成チーズ
01.6.2.1	皮を含む熟成したチーズ
01.6.2.2	熟成したチーズの皮
01.6.2.3	粉末チーズ（再配合用、例えばチーズソース用）
01.6.3	ホエイチーズ
01.6.4	プロセスチーズ
01.6.4.1	プレーンプロセスチーズ
01.6.4.2	果実、野菜、肉等を含む着香プロセスチーズ
01.6.5	チーズ類似製品
01.6.6	ホエイたんぱく質チーズ
01.7	乳性デザート類（例えば、アイスクリーム、アイスマルク、プディング、フルーツ又は着香ヨーグルト）
01.8	ホエイチーズを除くホエイ及びホエイ製品
01.8.1	ホエイチーズを除く液体ホエイ及びホエイ製品
01.8.2	ホエイチーズを除く乾燥ホエイ及びホエイ製品
02.0	油脂及び脂肪乳化物
02.1	本来的に水分を含まない油脂
02.1.1	バターオイル、無水乳脂肪、ギー

- 02.1.2 植物油脂
- 02.1.3 ラード、牛脂、魚油、及びその他の動物性油脂
- 02.2 主に油中水型の脂肪乳化物
 - 02.2.1 バター
 - 02.2.2 ファットスプレッド、乳性ファットスプレッド及び混合スプレッド
- 02.3 水中油型脂肪乳化物を主成分とする混合及び/又はフレーバーを加えた製品を含む脂肪乳化物
- 02.4 脂肪を主成分とするデザート、但し食品分類 01.7 の乳製品を主成分とするデザート製品を除く)
- 03.0 シャーベット及びソルベを含む食用水
- 04.0 果実及び野菜（マッシュルーム・キノコ、根茎・塊茎、豆類、及びアロエベラを含む）、海草、及びナッツ・種実類
 - 04.1 果実
 - 04.1.1 生鮮果実
 - 04.1.1.1 無処理生鮮果実
 - 04.1.1.2 表面処理した生鮮果実
 - 04.1.1.3 皮むきした、又はカットした生鮮果実
 - 04.1.2 加工果実
 - 04.1.2.1 冷凍果実
 - 04.1.2.2 乾燥果実
 - 04.1.2.3 酢、油、又は塩水漬け果実
 - 04.1.2.4 缶詰又は瓶詰め（殺菌済み）果実
 - 04.1.2.5 ジャム、ゼリー、マーメイド
 - 04.1.2.6 食品分類 4.1.2.5 の製品以外の果実を主原料とするスプレッド（例えばチャトニー）
 - 04.1.2.7 砂糖漬け果実
 - 04.1.2.8 果肉、プリー、果実のトッピング、及びココナッツミルクを含む果実調製品
 - 04.1.2.9 果実の香りを付けた水を主成分とするデザートを含む、果実を主成分とするデザート
 - 04.1.2.10 発酵果実製品
 - 04.1.2.11 ペーストリー用の果実フィリング
 - 04.1.2.12 調理した果実
 - 04.2 野菜（マッシュルーム及びキノコ類、根茎及び塊茎、豆類、及びアロエベラを含む）、海草、及びナッツ・種実類
 - 04.2.1 生鮮野菜（マッシュルーム及びキノコ類、根茎及び塊茎、豆類、及びアロエベラを含む）、海草、及びナッツ・種実類
 - 04.2.1.1 無処理生鮮野菜（マッシュルーム 及びキノコ類、根茎及び塊茎、豆類(大豆を含む)、及びアロエベラを含む）、海草、及びナッツ・種実類
 - 04.2.1.2 表面処理生鮮野菜（マッシュルーム及びキノコ類、根茎及び塊茎、豆類、及びアロエベラを含む）、海草、及びナッツ・種実類
 - 04.2.1.3 皮むきした、若しくはカット生鮮野菜（マッシュルーム及びキノコ類、根茎及び塊茎、豆類、及びアロエベラを含む）、海草、及びナッツ・種実類
 - 04.2.2 加工野菜（マッシュルーム及びキノコ類、根茎及び塊茎、豆類、及びアロエベラを含む）、海草、及びナッツ・種実類
 - 04.2.2.1 冷凍野菜（マッシュルーム 及びキノコ類、根茎及び塊茎、豆類、及びアロエベラを含む）、海草、及びナッツ・種実類
 - 04.2.2.2 乾燥野菜（マッシュルーム 及びキノコ類、根茎及び塊茎、豆類、及びアロエベラを含む）、海草、及びナッツ・種実類
 - 04.2.2.3 酢、油、塩水、又は醤油漬けた野菜（マッシュルーム及びキノコ類、根茎及び塊茎、豆類、及びアロエベラを含む）及び海草
 - 04.2.2.4 缶詰、瓶詰め（殺菌した）又はレトルトパウチした野菜（マッシュルーム及びキノコ類、根茎及び塊茎、豆類、及びアロエベラを含む）及び海草
 - 04.2.2.5 野菜（マッシュルーム及びキノコ類、根茎及び塊茎、豆類、及びアロエベラを含む）、海草及びナッツ・種子のピューレ及びスプレッド（例えば、ピーナッツバター）
 - 04.2.2.6 食品分類 04.2.2.5 以外の野菜（マッシュルーム及びキノコ類、根茎及び塊茎、豆類、及びアロエベラを含む）、海草及びナッツ・種実果肉の調製品（例えば野菜起源のデザート、ソース、甘味漬け野菜）
 - 04.2.2.7 発酵野菜（マッシュルーム及びキノコ類、根茎及び塊茎、豆類、及

- びアロエベラを含む) 及び海草製品、但し食品分類 06.8.6, 06.8.7, 12.9.1, 12.9.2.1 及び 12.9.2.3 の発酵大豆製品を除く
- 04.2.2.8 調理又は油で揚げた野菜 (マッシュルーム及びキノコ類、根茎及び塊茎、豆類、及びアロエベラを含む) 及び海草
- 05.0 菓子類
- 05.1 イミテーション及びチョコレートの代替品を含むココア製品及びチョコレート製品
- 05.1.1 ココア混合物 (粉末) 及びココア マス/ケーキ
- 05.1.2 ココア混合物 (シロップ)
- 05.1.3 フィリングを含むココアを主成分とするスプレッド
- 05.1.4 ココア及びチョコレート製品
- 05.1.5 イミテーションチョコレート、チョコレート代替品
- 05.2 硬質及び軟質のキャンディ、ヌガー等を含む、食品分類 05.1、05.3 及び 05.4 以外の菓子
- 05.2.1 硬質キャンディ
- 05.2.2 軟質キャンディ
- 05.2.3 ヌガー及び砂糖菓子
- 05.3 チューインガム
- 05.4 飾り付け、例えば高級ベーカリー製品用の、トッピング (非果実系) 及びスイートソース
- 06.0 食品分類 07.0 のベーカリー製品を除く、根茎・塊茎、及び豆類からの穀類及び穀類製品
- 06.1 米を含む、全粒、粉碎、又はフレーク状の穀類
- 06.2 小麦粉及びでん粉 (大豆パウダーを含む)
- 06.2.1 小麦粉
- 06.2.2 でん粉
- 06.3 Rolled oats を含む朝食用穀類
- 06.4 パスタ及び麺類、又はその類似品 (例えば、ライスペーパー、ライスパーミセリ、大豆パスタ及び麺類)
- 06.4.1 生パスタ及び麺類、又はその類似品
- 06.4.2 乾燥パスタ及び麺類、又はその類似製品
- 06.4.3 調理したパスタ及び麺類、又はその類似製品
- 06.5 穀類及びでん粉を主成分とするデザート (例えば、米のプディング、タピオカプディング)
- 06.6 バッター (例えば、魚及び食鳥肉のパン粉づけ又はバター用の)
- 06.7 餅 (東洋風に限る) を含む調理又は加工した米製品
- 06.8 大豆製品、但し食品分類 12.9 の大豆由来調味料及び薬味料を除く
- 06.8.1 大豆由来飲料 (豆乳)
- 06.8.2 大豆由来飲料フィルム (湯葉)
- 06.8.3 生鮮豆腐 (トウフ)
- 06.8.4 半乾燥豆腐
- 06.8.4.1 濃縮グレービーで煮た半乾燥豆腐
- 06.8.4.2 油で揚げた半乾燥豆腐
- 06.8.4.3 食品分類 06.8.4.1 及び 06.8.4.2 以外の半乾燥豆腐
- 06.8.5 乾燥豆腐 (凍豆腐)
- 06.8.6 発酵大豆 (例えば納豆、テンペ)
- 06.8.7 発酵豆腐
- 06.8.8 他の大豆たんぱく質製品
- 07.0 ベーカリー製品
- 07.1 パン及び普通のベーカリー製品
- 07.1.1 パン及びロールパン
- 07.1.1.1 酵母発酵パン及び特製パン
- 07.1.1.2 ソーダパン
- 07.1.2 甘味クラッカー以外のクラッカー
- 07.1.3 他の通常のベーカリー製品 (例えば、ベーグル、ピタ、イングリッシュマフィン)
- 07.1.4 詰め物パン及びパン小片を含む、パン製品
- 07.1.5 蒸しパン及びブドウパン
- 07.1.6 パンとベーカリー製品の混合品
- 07.2 高級ベーカリー製品 (甘味、塩味、うま味) 及びその混合品
- 07.2.1 ケーキ、クッキー及びパイ (例えば、果実を詰めたパイ又はカスタードパイ)
- 07.2.2 他の高級ベーカリー製品 (例えば、ドーナッツ、甘いロールパン、スコーン、マフィン)
- 07.2.3 高級ベーカリー製品用ミックス (例えばケーキ、パンケーキ)
- 08.0 食鳥肉及び猟獣肉を含む、食肉及び食肉製品
- 08.1 生鮮食肉、食鳥肉及び猟獣鳥肉
- 08.1.1 枝肉又はカットした生鮮食肉、食鳥肉及び猟獣鳥肉
- 08.1.2 細断した生鮮食肉、食鳥肉及び猟獣鳥肉
- 08.2 枝肉又はカット肉の加工食肉、食鳥肉及び猟獣鳥肉製品

- 08.2.1 非加熱の、枝肉又はカット肉の加工食肉、食鳥肉及び猟獣鳥肉製品
 - 08.2.1.1 保存処理した（塩蔵を含む）、非加熱の、枝肉又はカット肉の加工食肉、食鳥肉及び猟獣鳥肉製品
 - 08.2.1.2 保存処理し（塩蔵を含む）、乾燥した、非加熱の、枝肉又はカット肉の加工食肉、食鳥肉及び猟獣鳥肉製品
 - 08.2.1.3 発酵した、非加熱の、枝肉又はカット肉の加工食肉、食鳥肉及び猟獣鳥肉製品
- 08.2.2 加熱した、枝肉又はカット肉の加工食肉、食鳥肉及び猟獣鳥肉製品
- 08.2.3 冷凍した、枝肉又はカット肉の加工食肉、食鳥肉及び猟獣鳥肉製品
- 08.3 加工した、細断食肉、食鳥肉、及び猟獣鳥肉製品
 - 08.3.1 非加熱の、加工した、細断食肉、食鳥肉、及び猟獣鳥肉製品
 - 08.3.1.1 保存処理した（塩蔵を含む）、非加熱の、加工した、細断食肉、食鳥肉、及び猟獣鳥肉製品
 - 08.3.1.2 保存処理し（塩蔵を含む）、乾燥した、非加熱の、加工した、細断食肉、食鳥肉、及び猟獣鳥肉製品
 - 08.3.1.3 発酵した、非加熱の、加工した、細断食肉、食鳥肉、及び猟獣鳥肉製品
 - 08.3.2 加熱した、加工した、細断食肉、食鳥肉、及び猟獣鳥肉製品
 - 08.3.3 冷凍した、加工した、細断食肉、食鳥肉、及び猟獣鳥肉製品
- 08.4 可食のケーシング（例えば、ソーセージのケーシング）
- 09.0 軟体動物、甲殻類及び棘皮動物を含む魚類及び魚製品
 - 09.1 軟体動物、甲殻類及び棘皮動物を含む生鮮魚及び魚製品
 - 09.1.1 生鮮魚
 - 09.1.2 生鮮軟体動物、甲殻類及び棘皮動物
 - 09.2 軟体動物、甲殻類及び棘皮動物を含む加工魚及び魚製品
 - 09.2.1 軟体動物、甲殻類及び棘皮動物を含む冷凍魚類、魚の切り身及び魚製品
 - 09.2.2 軟体動物、甲殻類及び棘皮動物を含む冷凍バターをつけた魚、魚の切り身及び魚製品
 - 09.2.3 軟体動物、甲殻類及び棘皮動物を含む冷凍細断した又はクリームを付けた魚製品
 - 09.2.4 軟体動物、甲殻類及び棘皮動物を含む調理した及び／又は揚げた魚及び魚製品
 - 09.2.4.1 調理した魚及び魚製品
 - 09.2.4.2 調理した軟体動物、甲殻類及び棘皮動物
 - 09.2.4.3 軟体動物、甲殻類及び棘皮動物を含む揚げた魚及び魚製品
 - 09.2.5 軟体動物、甲殻類及び棘皮動物を含む薫製、乾燥、発酵及び塩蔵した魚及び魚製品
 - 09.3 軟体動物、甲殻類及び棘皮動物を含む半貯蔵性の魚及び魚製品
 - 09.3.1 マリネードにし更に／又はゼリー化した、軟体動物、甲殻類及び棘皮動物を含む魚及び魚製品
 - 09.3.2 漬け汁に漬けた及び／又は塩水に漬けた MCE を含む魚及び魚製品
 - 09.3.3 サケの代替え品、キャビア、及び他の魚卵製品
 - 09.3.4 食品分類 09.3.1～09.3.3 の製品を除く、軟体動物、甲殻類及び棘皮動物を含む半貯蔵性の魚及び魚製品（例えば魚肉すり味）
 - 09.4 完全に保存性のある、缶詰又は発酵した、軟体動物、甲殻類及び棘皮動物を含む魚及び魚製品
- 10.0 卵及び卵製品
 - 10.1 生鮮卵
 - 10.2 卵製品
 - 10.2.1 液卵製品
 - 10.2.2 冷凍卵製品
 - 10.2.3 乾燥及び／又は加熱凝固させた卵製品
 - 10.3 アルカリ性、加塩及び缶詰卵を含む保存卵
 - 10.4 卵を主成分とするデザート（例えば、カスタード）
- 11.0 蜂蜜を含む甘味料
 - 11.1 精製及び粗製砂糖
 - 11.1.1 白砂糖、無水ブドウ糖、一水和ブドウ糖、果糖
 - 11.1.2 粉末砂糖及びブドウ糖
 - 11.1.3 軟質白砂糖、軟質ブラウン砂糖、ブドウ糖シロップ、乾燥ブドウ糖シロップ及び粗製砂糖
 - 11.1.3.1 砂糖菓子製造用の乾燥ブドウ糖シロップ
 - 11.1.3.2 砂糖菓子製造用のブドウ糖シロップ
 - 11.1.4 乳糖
 - 11.1.5 栽培場又は粉碎白砂糖
 - 11.2 食品分類 11.1.3 の製品を除くブラウン砂糖
 - 11.3 食品分類 11.1.3 の製品を除く、糖蜜を含み、（部分的に）異性化した糖も含む液糖シロップ
 - 11.4 他の糖及びシロップ（例えば、キシロース、メイプルシロップ、糖のトッピング）
 - 11.5 蜂蜜
 - 11.6 高甘味度甘味料を含む卓上用甘味料
- 12.0 食塩、香辛料、スープ、ソース、サラダ、タンパク質製品

- 12.1 食塩及びその代替品
 - 12.1.1 食塩
 - 12.1.2 食塩代替品
- 12.2 ハーブ、香辛料、調味料、及び薬味料（例えば、即席麺の別添スープ）
 - 12.2.1 ハーブ
 - 12.2.2 香辛料
- 12.3 酢
- 12.4 辛子
- 12.5 スープ及びブロス
 - 12.5.1 缶詰、瓶詰、及び冷凍したものを含む、そのまま摂取できるスープ及びブロス
 - 12.5.2 スープ及びブロスの配合品
- 12.6 ソース及び類似製品
 - 12.6.1 乳化したソース（例えば、マヨネーズ、サラダドレッシング）
 - 12.6.2 乳化していないソース（例えば、チーズソース、クリームソース、褐色のグレービー）
 - 12.6.3 ソース及びグレービーの配合品
 - 12.6.4 透明なソース（例えば、魚醤）
- 12.7 サラダ（例えば、マカロニサラダ、ポテトサラダ）、及びサンドイッチスプレッド、但し食品分類 04.2.2.5 及び 05.1.3 のカカオ、ナッツを主原料とするスプレッドを除く）
- 12.8 イースト及び類似製品
- 12.9 大豆由来調味料及び薬味料
 - 12.9.1 発酵大豆ペースト（例えば、味噌）
 - 12.9.2 大豆醤油
 - 12.9.2.1 発酵大豆醤油
 - 12.9.2.2 非発酵大豆醤油
 - 12.9.2.3 他的大豆醤油
- 13.0 特殊な栄養上の使用を目的とする食品
 - 13.1 乳幼児用配合品、その後使用用の配合品及び乳幼児用特殊医療用配合品
 - 13.1.1 乳幼児用配合品
 - 13.1.2 その後使用用配合品
 - 13.1.3 乳幼児用特殊医療用配合品
 - 13.2 乳幼児及び幼若者用補助食品
 - 13.3 特殊医療用栄養食品（但し、食品分類 13.1 の製品は除く）
 - 13.4 痩身及び減量目的の配合食品
 - 13.5 食品分類 13.1～13.4 及び 13.6 の製品以外の配合食品（例えば、規定食のための栄養補助食品）
 - 13.6 栄養補助食品
- 14.0 酪農製品を除く飲料
 - 14.1 非アルコール性飲料（「ソフト」）ドリンク
 - 14.1.1 水
 - 14.1.1.1 天然ミネラルウォーター及び水源水
 - 14.1.1.2 卓上水及び炭酸水
 - 14.1.2 果実ジュース及び野菜ジュース
 - 14.1.2.1 果実ジュース
 - 14.1.2.2 野菜ジュース
 - 14.1.2.3 果実ジュースの濃縮物
 - 14.1.2.4 野菜ジュースの濃縮物
 - 14.1.3 果実及び野菜のネクター
 - 14.1.3.1 果実ネクター
 - 14.1.3.2 野菜ネクター
 - 14.1.3.3 果実ネクターの濃縮物
 - 14.1.3.4 野菜ネクターの濃縮物
 - 14.1.4 「スポーツ」、「エネルギー」又は「電解質」飲料を含む、水を主原料とする飲料
 - 14.1.4.1 着香した炭酸水飲料
 - 14.1.4.2 着香した無炭酸水飲料（パンチ及びエードを含む）
 - 14.1.4.3 着香した水飲料の（液状又は固形状の）濃縮物
 - 14.1.5 コーヒー、コーヒーの代替品、茶、ハーブの抽出物、及びココアを除く他の温かい穀類飲料
 - 14.2 無アルコール及び低アルコールの同等品を含むアルコール飲料
 - 14.2.1 ビール及びモルト飲料
 - 14.2.2 リンゴ酒及びナシ酒
 - 14.2.3 ワイン
 - 14.2.3.1 非発泡ワイン
 - 14.2.3.2 発泡及び半発泡ワイン
 - 14.2.3.3 強化ワイン、リカーワイン及び甘味ワイン
 - 14.2.4 果実ワイン（ブドウを除く）
 - 14.2.5 蜂蜜酒
 - 14.2.6 アルコール濃度が 15%以上の蒸留アルコール飲料

- 14.2.7 芳香をつけたアルコール飲料（例えば、ビール、ワイン及びスピリッツ風クーラー型飲料、低アルコール飲料）
- 15.0 そのまま摂取できるセイヴォリー
- 15.1 スナック—ジャガイモ、穀類、小麦粉又はデンプン（根、塊茎、豆類からの）を主成分とする
- 15.2 表面を被覆したナッツ及びナッツの混合物（例えば、乾燥果実とともに）を含む加工ナッツ
- 15.3 魚を主成分とするスナック
- 16.0 複合食品—食品分類 01～15 に分類できないもの

出典) 日本食品添加物協会

表 3.1-4 コーデックス食品規格分類相互参照表

Food Cat.No.	Title	Stan. No.			
01.2.1	Fermented Milks (plain)	243-2003	01.6.2.1	Cheeses in Brine	208-1999
01.2.1.1	Fermented Milks (plain, non-heat treated)	243-2003	01.6.2.1	Cheddar	263-1966
01.2.1.2	Fermented Milks (plain, heat treated)	243-2003	01.6.2.1	Danbo	264-1966
01.3.1	Evaporated milks	281-1971	01.6.2.1	Edam	265-1966
01.3.1	Sweetened Condensed Milks	282-1971	01.6.2.1	Gouda	266-1966
01.3.2	Blend of Evaporated Skimmed Milk and Vegetable Fat	250-2006	01.6.2.1	Havarti	267-1966
01.3.2	Blend of Sweetened Condensed Milk and Vegetable Fat	252-2006	01.6.2.1	Samsøe	268-1966
01.4.1	Cream and Prepared Creams (reconstituted cream, recombined cream, prepackaged liquid cream)	288-1976	01.6.2.1	Emmental	269-1967
01.4.2	Cream and Prepared Creams (whipping cream, cream packaged under pressure, whipped cream)	288-1976	01.6.2.1	Tilsiter	270-1968
01.4.3	Cream and Prepared Creams (fermented cream, acidified cream)	288-1976	01.6.2.1	Saint Paulin	271-1968
01.5.1	Milk Powders and Cream Powders	207-1999	01.6.2.1	Provolone	272-1968
01.5.1	Edible Casein Products	290-1995	01.6.2.1	Coulommiers	274-1969
01.5.2	Blend of Skimmed Milk and Vegetable Fat in Powdered Form	251-2006	01.6.2.1	Camembert	276-1973
01.6.1	Unripened Cheese, including Fresh Cheese	221-2001	01.6.2.1	Brie	277-1973
01.6.1	Mozzarella	262-2007	01.6.2.1	Extra Hard Grating Cheese	278-1978
01.6.1	Cottage Cheese	273-1968	01.6.2.1	Cheese (ripened, including mould ripened)	283-1978
01.6.1	Cream Cheese (Rahmfrischkäse)	275-1973	01.6.3	Whey Cheeses (whey cheese)	284-1971
01.6.1	Cheese (unripened, including fresh cheese) - See also CODEX STAN 221-2001	283-1978	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 grandif</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	099-1981

	Salad	
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 Beans	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.	038-1981

	freeze dried, fungus grits and fungus powder)	
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 (Cucumber Pickles)	115-1981
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 Millet Grains	169-1989
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 日本

3.2.1 食品法規体系と個別食品規格の概要関連図

コーデックス委員会での図 3.1-1 a,b と同様に、我が国の食品法体制と個別食品規格の概要関連図を図 3.2-1a,b に示した。本項は各国との相互理解のためには我が国の事例を紹介することが重要であることから作成している。

図 3.2-1a

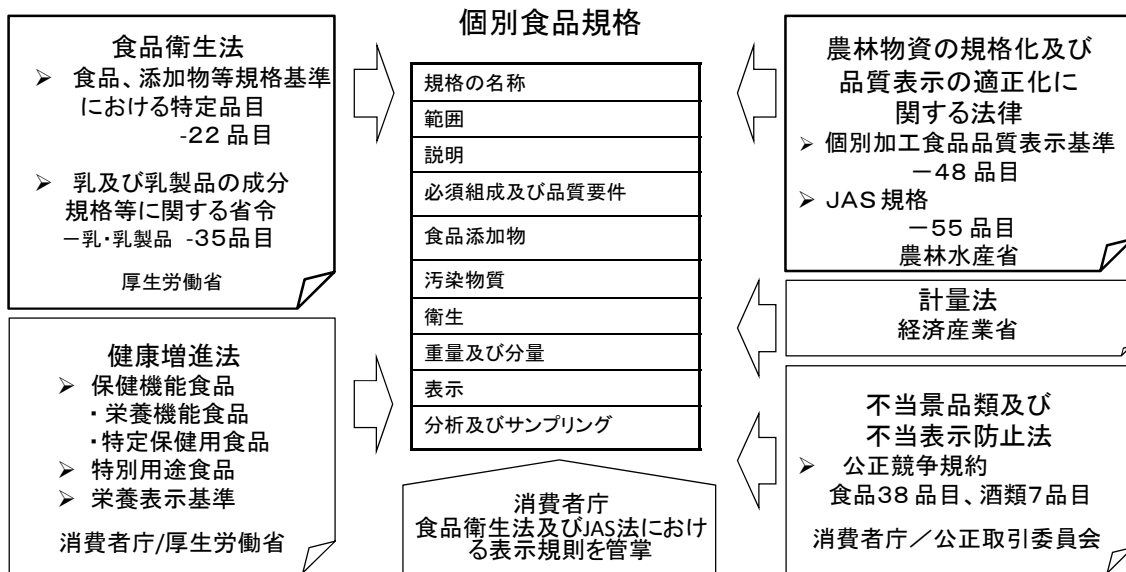
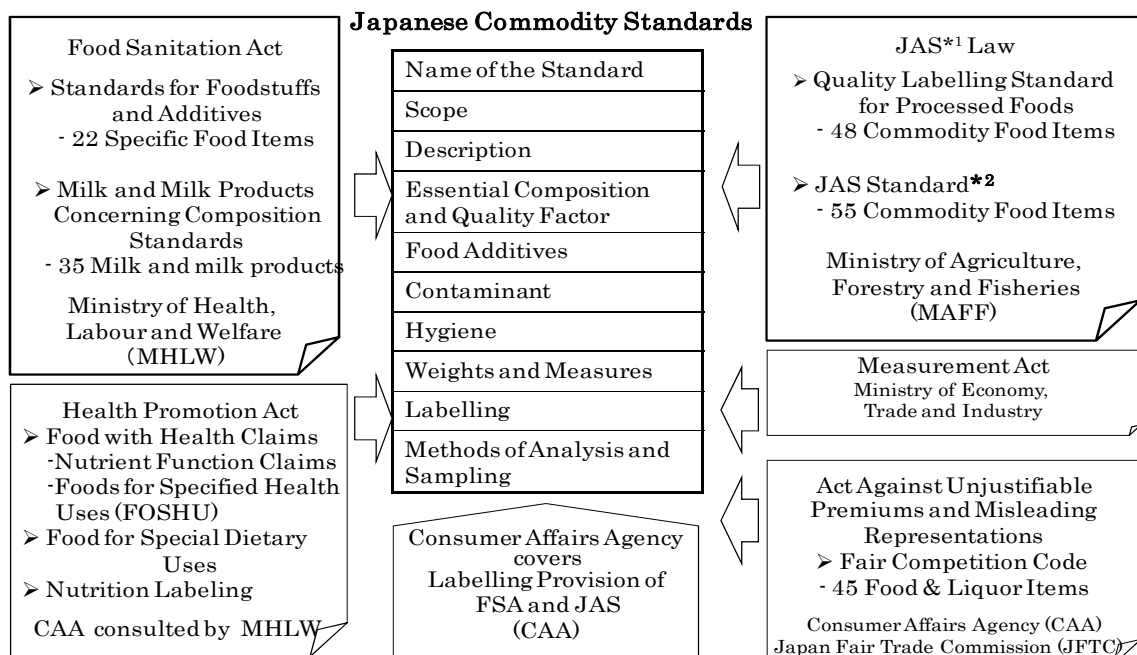


図 3.2-1b



*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 個別食品規格

3.2.2.1 農林物資の規格化及び品質表示の適正化に関する法律（JAS法）

この法律は、飲食料品等が一定の品質や特別な生産方法で作られていることを保証する「JAS規格制度（有機食品以外は任意の制度）」と、食品の名称、原材料、原産地など品質に関する一定の表示を義務付ける「品質表示基準制度」からなる。

（1）品質表示基準制度

品質表示基準制度では、一般的に適用される生鮮食品・加工食品・遺伝子組み換え食品及び個別生鮮食品3品目、個別加工食品48品目に係わる基準が制定されている（表3.2-1）。

表 3.2-1 品質表示基準

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	Bacons	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 hamburg 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 規格制度

JAS 規格は食品、林産物、生糸・畳表等の農産物の品質、組成、等級、特性、有用性等を主として規定しており、製造施設の維持管理や品質管理、生産工程管理の実施状況を含め、規格を満たしていることを農林水産大臣の登録を受けた登録認定機関より確認された製品に JAS マークをつけることができる制度である。

食品に関する JAS 規格は 2010 年 3 月現在、5 分野に 55 品目に関し制定されている (表 3.2-2)。

表 3.2-2 J A S 規格

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	Shoyu (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	Kezuribushi (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		

表 3.2-3 食品、添加物等の規格基準での特定品目

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 食品衛生法及び関連法規

食品衛生法は食品添加物、残留農薬、汚染物質、衛生管理等の食品安全に係わる事項を規定している。

(1) 食品、添加物等の規格基準（厚生省告示第 370 号）

食品、添加物等の規格基準には食品一般の成分規格、製造・加工・調理基準、保存基準に加え、特定の食品 22 品目に関し、成分規格、製造基準、保存基準が定められている（表 3.2-3）。

(2) 乳及び乳製品等の成分規格に関する省令（厚生省令第 52 号）

乳及び乳製品に関しては、特別に、この省令で成分規格、製造及び保存基準、衛生基準等が定められている（表 3.2-4）。

3.2.2.3 表示に関する公正競争規約

不当景品類及び不当表示防止法（景表法）に基づく公正競争規約では、事業者および事業者団体による食品表示自主基準（表 3.2-5）が定められており、消費者庁および公正取引委員会にて管掌されている。参加している事業者の違反行為には罰則があり、アウトサイダーの事業者にも規約の社会的認知度により公正取引委員会が措置をとることがあり得る。

表 3.2-4 乳及び乳等省令による特定品目

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		

表 3.2-5 公正取引規約 (食品)

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

3.2.3 ケーススタディ（コーデックス規格との対比）

東アジア各国で規格化が進んでいる麺類のうち「即席めん」、清涼飲料水の代表的品目として「炭酸飲料」及び日本で細分化して規格化されている「調理冷凍食品」に関してコーデックス規格と対比し整理した。

3.2.3.1 即席めん

コーデックスにおいてインスタントヌードル (Instant Noodle) は日本等が発案し、2006年に個別食品規格として採択されている。FCS (Food Category System) 上は 06.4: パスタ、麺類及びその類似製品の 06.4.3: 調理したパスタ、麺類及びその類似製品に分類されており、06.4の範囲では唯一の個別食品規格である。

表 3.2-6 にコーデックス規格、食品衛生法での特定品目規格基準「即席めん」、JAS 法での品質表示基準「即席めん」、JAS 規格での「即席めん」の概要を比較した。

3.2.3.2 炭酸飲料

飲料について FCS では 14.0: 酪農製品を除く飲料、14.1 非アルコール飲料、14.2 アルコール飲料と大別分類されている。14.1 の分野で策定されている個別食品規格は、Natural Mineral Waters (Stan 108-1981)、Bottled/Packaged Waters other than natural mineral waters (Stan 227-2005)、Fruit juice and Nectars (Stan 247-2005) の 3 品目のみである。

炭酸飲料については 14.1. 4: スポーツ、エネルギー又は電解質飲料を含む、水を原料とする着香飲料の、14.1.4.1: 水を原料とする着香炭酸飲料として位置づけられている。

我が国においては、食品衛生法上は特定品目規格基準「清涼飲料水」という広い範囲に包括され、JAS 法上では「炭酸飲料」として個別の品質表示基準、JAS 規格が設定されている。表 3.2-7 にて概要を比較した。

3.2.3.3 調理冷凍食品

JAS 法の調理冷凍食品品質表示基準においては、冷凍フライ類、冷凍しゅうまい、冷凍ぎょうざ、冷凍春巻、冷凍ハンバーグ、ステーキ、冷凍ミートボール、冷凍フィッシュハンバーグ、冷凍フィッシュボール、冷凍米飯類及び冷凍めん類であって、容器に入れ、又は包装されたものに限ると定義されている。原材料名、その含有量、衣の率、皮の率等からその品質規格と表示基準が詳細にわたり規定されている。我が国の市場においては、原材料、加工品の輸入量も多く、需要の多い食品であることからケーススタディに選定した。食品衛生法からは特定品目規格基準では広範囲な「冷凍食品」に包括され、微生物規格、保存基準が適用される。

コーデックスでは急速冷凍食品（野菜、果実、肉、魚貝類等）として 23 の個別食品規格が設定されているが、我が国の調理冷凍食品に相当するものは一規格のみである (Quick Frozen Fish Sticks (Fish Fingers), Fish Portions and Fish Fillets - Breaded Breaded and in Batter (Stan 166-1989)。表 3.2-8 に比較検討のための表を記載した。

表 3.2-6 ケーススタディ 1 即席めん

	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.....	● Fried noodles	● 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	● Acid value not more than 3 mg KOH/g oil ● Peroxide value not more than 30 meq/kg	● Wheat flower and/or buckwheat flower as the main ingredients ● Add salt or lye water	● 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			● 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)

表 3.2-7 ケーススタディ 2 炭酸飲料

	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
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

表 3.2-8 ケーススタディ 3 調理冷凍食品

JAS Quality Labelling Standard		
Prepared Frozen Foods (detail Items)		
<ul style="list-style-type: none"> ➤ 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 韓国

3.3.1 食品規格に係わる法体系

3.3.1.1 行政機関

韓国の食品行政は、食品カテゴリーや管理項目により表 3.3-1 に示すような行政機関が担当している。

表 3.3-1：韓国食品安全管理システム¹

セクション	生産（農業、飼育、養殖など）	輸入	国内
農産物	MIFAFF	KFDA	
水産物	MIFAFF	KFDA	
畜産物	MIFAFF	MIFAFF KFDA（残留有害物質基準）	
ボトル入りミネラルウォーター	Ministry of Environment		
アルコール飲料	National Tax Service KFDA（残留有害物質基準）		
学校給食	MEST 教育局 KFDA（学校給食施設以外の給食施設における安全管理）		

MIFAFF：Ministry for Food, Agriculture, Forestry and Fisheries（農林水産食品部）

KFDA：Korea Food & Drug Administration（韓国食品医薬品局）

MEST：Ministry of Education, Science and Technology（教育科学技術部）

KFDA は食品ならびに医薬品の安全性と有用性を保証し公衆衛生を促進するとともに関連産業の発展を支援するための法の執行機関²であり、MIHWAF（Ministry of Health, Welfare and Family Affairs、保健福祉家族部）は食品安全に係わる政策立案と法制定を担っている^{3,4}。この他に、適正表示と消費者保護の観点から、韓国公正取引委員会（KFTC: Korea Fair Trade Commission）、KCA（Korea Consumer Agency、消費者院）などが関与している。

¹ Cherl-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)

⁴ 藤田哲; 第8章 韓国, 消費者の安心・完全確保に向けた海外主要国の食品に関する制度に係わる総合調査報告書<各国報告書編>, 2009、社団法人商事法務研究会

また、韓国では日本と異なり独立したリスクアセスメント機関を持たず、表 3.3-1 に示した役割分担に基づき、KFDA と MIFAFF によりリスクマネージメントとリスクアセスメントを行うことでアセスメント結果に基づく管理をスムーズに行う仕組みになっている。

3.3.1.2 関連法規

韓国の食品関連法規としては、MIHWAF により定められた食品衛生法、食品安全基本法、健康機能性食品法、健康増進法、韓国公正取引委員会が定める専売法、公正取引法、公正表示広告法、さらに消費者庁管轄の消費者保護法がある。このうち、食品規格に関係するのは主に食品衛生法であり、当該法とその施行規則類は英語翻訳版が KFDA のホームページにて公開されている⁵。

MIFAFF は農産物、水産物、畜産物の品質基準を制定している。その適用範囲は以下の通りである。

- ・ 農産物品質基準：加工品を除く全ての農産物（加工品は食品衛生法適用）
- ・ 水産物品質基準：加工品を含む全ての水産物（第三国からの生きた海産動植物は水産動物病害管理法適用）
- ・ 畜産物品質基準：肉、乳、卵とその加工品

さらに、MIFAFF では、表示と安全性に係わる種々の認証システムが運用されている。以下にその種類とマークを示す。

- ・ 特定表示認定システム：農業適正規範（105 品目）、有機食品、遺伝子組み換え



- ・ 安全性認定システム：HACCP、トレーサビリティ（農産物、畜産物、水産物製品）、畜産安全管理システム（LPSMS）、SafeQ

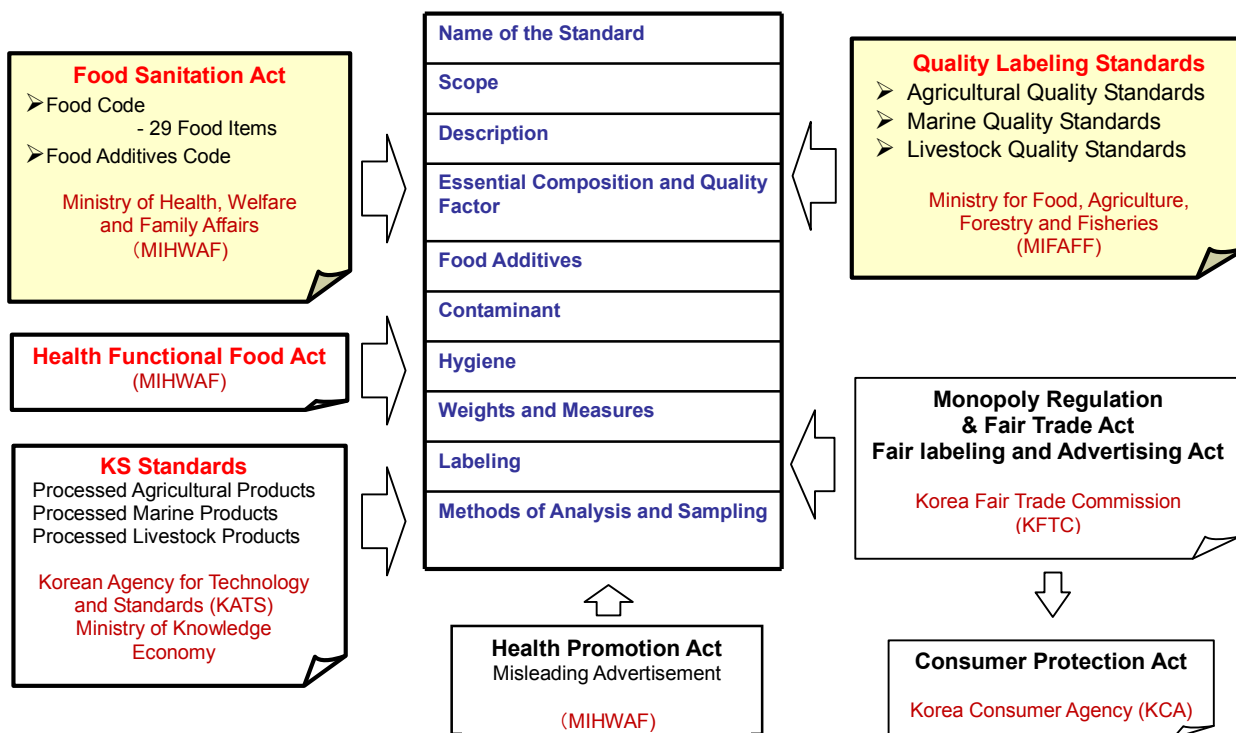


⁵ KFDA ; Relevant Rule <http://eng.kfda.go.kr/index.php> (Accessed: 2010/03/19)

3.3.2 韓国における食品規格の概要

コーデックス食品規格の項目を軸に、韓国に存在する食品規格の概要関連図(図 3.3-1)を以下に示す。韓国には、食品衛生法第により規定された食品基準 (Food Code) に 29 品目の食品規格が存在する。一方、韓国知識経済部技術標準院 (Ministry of Knowledge Economy, Agency for Technology and Standards: KATS) が策定する韓国産業規格 (Korean Industrial Standards: KS) は、JAS 規格と類似した認証マークを取得するための規格であり、任意のものとして位置づけられる。また、MIFAFF の品質基準にはいくつかの加工食品の規格が含まれているが、主に Food Code の 29 品目と KS 規格について詳細を調査した。なお、食品添加物の規格と使用基準 (分析法含む) については Food Additive Code⁶が定められており、共通に適用される。

図 3.3- 1 : 韓国の食品規格の概要図



3.3.2.1 Food Code に定められた食品規格

Food Code は、(1) 食品衛生法第 7 条 1 項の定める食品の製造、加工、調理、使用、保存の方法と食品構成成分の規格、(2) 第 9 条 1 項に定める原材料と器具・容器・包装の製造方法、(3) 第 10 条 1 項に定める食品、食品添加物、器具・容器・包装ならびに遺伝子組み換え食品の表示基準を規定している。構成は以下の通り。

⁶ KFDA: Korea Food Additive Code (<http://fa.kfda.go.kr/foodadditivescode.html>) (Accessed: 2010/03/19)

- 第1条 総則（一般分析法を含む）
- 第2条 一般食品の共通基準および規格
- 第3条 長期保存食品の規格
- 第4条 一般加工食品の基準および規格
- 第5条 個別食品の基準および規格

本則に定められた個別食品規格の表を以下に示す。

表 3.3-2：第3条（長期保存食品）に規定される個別食品規格

1	Canned & Bottled Food（缶詰および瓶詰食品）
2	Retort Food（レトルト食品）
3	Frozen food（冷凍食品）

表 3.3-3：第5条に規定される個別食品規格

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 (Yeot)	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 KATS の定める韓国産業規格（KS 規格）⁷

KS 規格は産業標準法に基づき制定された国家規格で、工場査察と監査により KS 基

⁷ KATS (<http://kats.go.kr/english/index.asp>) (Accessed: 2010/03/19)

準への適合が認められた製品に対して KS マーク (図 3.3-2) を表示することが許可されるものである。KS 規格には、製品の品質や計量法などを規定した「製品規格」、分析、試験、査察、計測法の標準化に係わる要求事項を定める「手順規格」、特定技術や技術制度について規定した「横断的規格」の 3 タイプがある。これらの規格はステークホルダーからの提案に基づき、韓国産業標準委員会による審査を経て策定することができる。現在、KS 規格の総数は 22,000 を超え、そのうち 513 が食品に係わる規格となっている。この 513 には個別食品の規格に加え、栄養成分の分析方法なども含まれている⁸。個別食品規格のリストを表 3.3-4 から表 3.3-7 に示した。



図 3.3-2 : KS マーク

表 3.3-4 : 加工農産物 KS 規格

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

⁸ KATS: Search for Korean Industrial Standards (http://www.kats.go.kr/english/com/search_ks.asp?OlapCode=ATSU28Search) (Accessed: 2010/03/19)

表 3.3-5 : 加工畜産物 KS 規格

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

表 3.3-6 : 加工水産物 KS 規格

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

表 3.3-7 : その他の食品 KS 規格

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 食品規格の内容

Food Code に定められた食品規格と KS 規格の規定内容を比較するため、即席めん、炭酸飲料、調理冷凍食品を取り上げて比較検討を行った。

表 3.3-8 ケーススタディ 1 即席めん

	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.

* 即席めんの KS 規格は 2009 年 12 月 28 日に削除され、fresh noodles (生めん)、pre-cooked noodles (調理めん)、fried noodles (揚げめん)、dried noodles (乾めん) の 4 つが新たに策定された。

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

表 3.3-9 ケーススタディ 2 炭酸飲料

	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	Pressure of carbonic acid gas (kg/cm²) ① Carbonated water : Not less than 1.0 ② Carbonated beverage : Not less than 0.5 Lead (mg/kg) : Not more than 0.3 Cadmium (mg/kg) : Not more than 0.1 Tin (mg/kg) : Not more than 150 (Limited to canned products)	Must have satisfactory color and flavor Must not have off-taste and off-odor Pressure of carbonic acid gas (kg/cm²) ① Carbonated water : Not less than 2.5 ② Carbonated beverage : Not less than 2.0 Lead (mg/kg) : Not more than 0.3 Cadmium (mg/kg) : Not more than 0.1 Tin (mg/kg) : Not more than 150 (Limited to canned products) Packaging standards : The container shall not be swollen, deformed or rust, requiring complete sealing and appropriate degree of vacuum .
Food Additives	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)	
Hygiene	The number of Bacteria : Not more than 100 Coliform group : Negative	The number of Bacteria : Not more than 100 Coliform group : Negative
Labeling	Specific labeling methods 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.	Labeling Standards follow "General Standard of Labeling for Processed Foods" (KS H 1101)

	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.

表 3.3-10 ケーススタディ 3 冷凍食品

	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 まとめ

今回、とりあげた3つの食品規格においては、Food Code と KS 規格との間で設定された項目の顕著な違いは見られなかった。また、いくつかの JAS 規格でみられる食品添加物の使用制限はなく、安全性面の基準は Food Code でカバーされる合理的な内容と判断できる。一方、分析法については KS 規格の方で細かく指定されており、KS 規格による品質の優位性は厳格な分析に基づく GMP 的視点から支えられていることが伺える。今後は、他の食品規格でも比較を行うと同時に、分析法について規定した KS「手順規格」についても調査し、日本で定められた分析法や国際基準との比較を実施することでより KS 規格の特徴について明確にすることがハーモナイゼーションの観点から重要と考える。

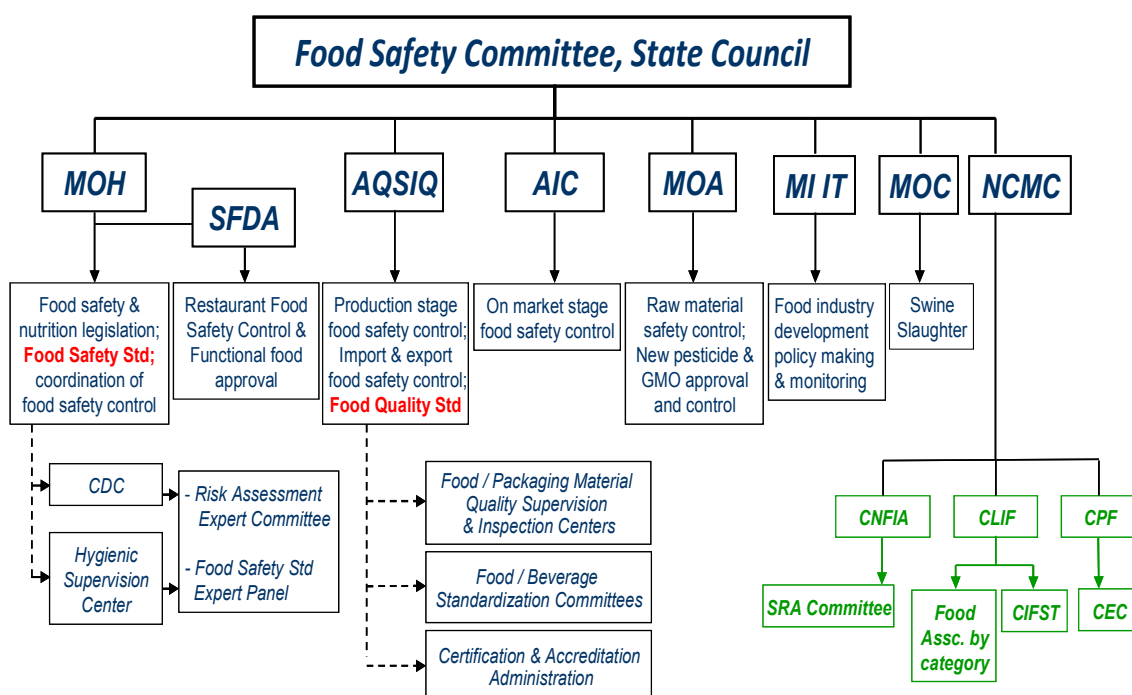
3.4 中国

3.4.1 食品規格に関わる法体系

中国の食品行政は2009年2月28日に公布され、同年6月1日より施行された「中華人民共和国食品安全法」により枠組みが規定されている。

従来、中国では様々な食品規格が存在し、どの規格を遵守すれば良いのか食品企業間にも混乱が生じていたが、今回の食品安全法施行により国家規格としての統一化が積極的に進められ大幅な改善が行われるものと期待されている。同法では食品衛生から食品安全までを包括的にカバーしつつ、食品安全に関与する政府内関連部門の職責の明確化、食品リコール制度の新設、リスクのモニタリング・管理・評価部門をも明確に規定している。また、国務院の規定に従い「食品安全委員会」を設立し、以下の図3.4-1に示される構成で食品の安全性を保証し、公衆の健康と安全を保証する体制を取るようになった。

図 3.4-1： 食品安全法に基づく食品行政体制



食品規格に関連する国務院担当部門の役割も食品安全法により以下のように規定されている。

➤ 衛生行政部門（Ministry of Health, MOH）

食品安全の総合的な調整を担当し、リスク評価、食品安全基準の制定、食品安全情報の公表等を担当。

この部門の下部組織として、品質監督部門（食品製造に伴う食品安全基準・検査方法等の設定ならびにそれらの監督管理）、工商行政管理部門（食品流通の監督管理）、食品薬品監督管理部門（飲食サービス業の監督管理と機能性食品の許認可）がある。

- 国家輸出入検査検疫部門（Administration of Quality Supervision, Inspection and Quarantine, AQSIQ）
輸出入品の検査検疫業務を担当。
- 農業行政部門（Ministry of Agriculture, MOA）
食品中の残留農薬、残留動物用医薬品の制限量とその検査方法を担当。実施に当たっては衛生行政部門と連携。

3.4.2 中国における食品規格の概要

中国における食品安全国家規格は強制執行基準であり、国務院衛生行政部門の責任により制定、公布され、国務院標準化行政部門が国家規格コード（GB規格コード：GB(Guo jia Biao zhun)）を提供し、食品安全国家基準審査委員会の審査を経て公表される。

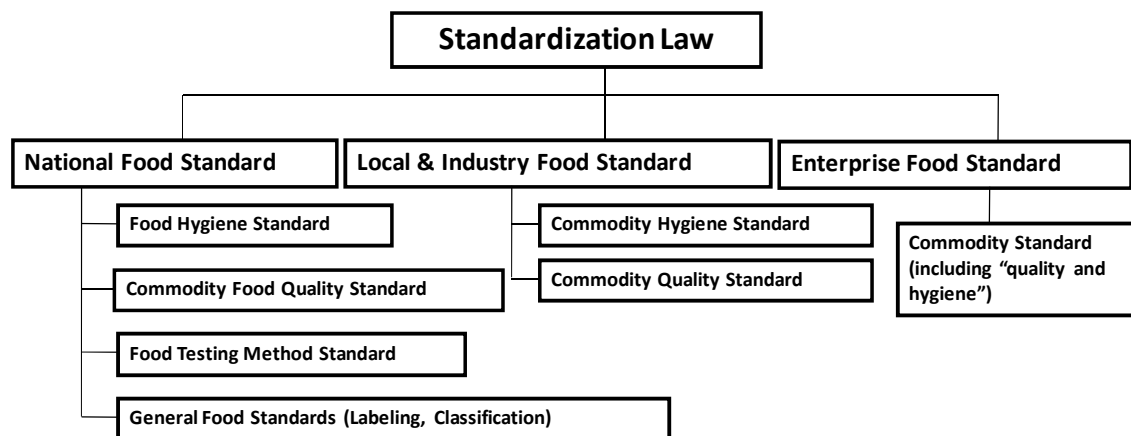
食品以外の分野でも国家規格コードがそれぞれの分野の関連政府機関により同様のプロセスを経て公布され、その後、国家標準化管理委員会（Standardization Administration of China, SAC）にて管理される。国家基準コードの頭の記号はすべての産業領域に共通したもので、

GB	強制国家規格
GB/T	任意国家規格

として公表され、それに続く番号にて識別が可能となっている。国家標準化管理委員会では、すべての国家基準を一覧として公表している（<http://www.sac.gov.cn/>）。食品関連のGB規格の一例としては、GB2760は「食品添加物の使用に関する衛生基準」、GB7718は「包装容器に適用される表示基準」である。

中国における食品規格に関する法体系の大きな特徴として、図3.4-2にあるように国家規格として規定されるもの（National Standard）、地方の省レベル（地方規格）または業界団体による自主規格（部門規格）として規定されるもの（Industry & Local Standard）、個々の企業の社内規格と規定されるもの（Enterprise Standard）という三階層の構造になっている点である。今後はす

図 3.4-2：中国の食品規格の三階層性

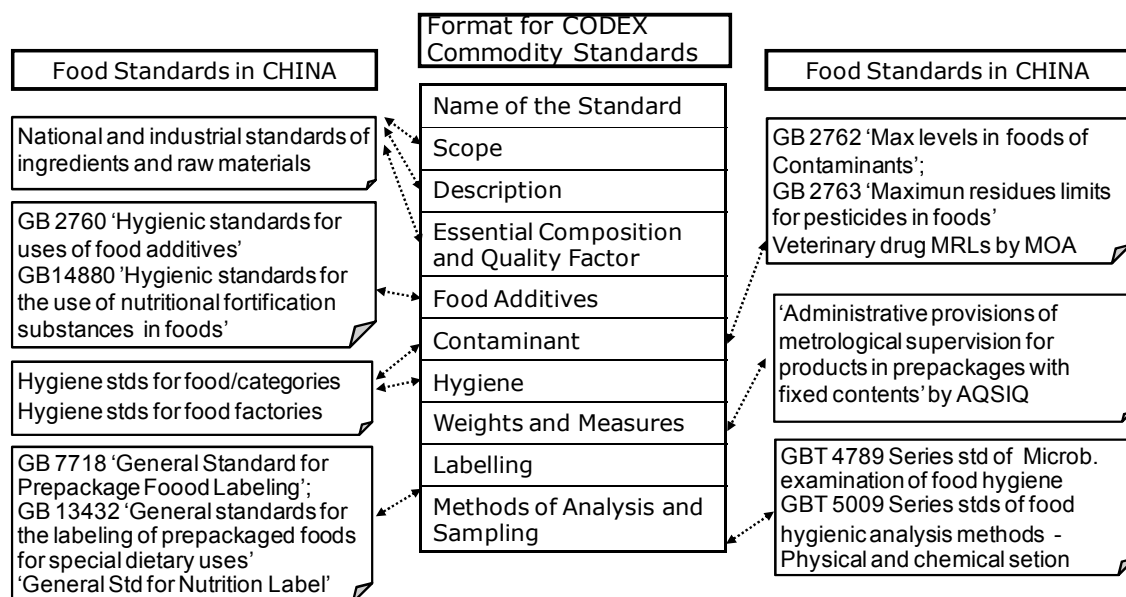


べてが国家規格化に向けて進むと考えられるが、その実現にはまだ時間がかかるものと想定される。

ある食品カテゴリーに対して国家規格が規定されている場合はその規定を遵守することになっており、違反した場合の罰則規定も明確にされている。国家規格がない食品については、その次の階層にある地方規格のまたは業界団体の部門規格が適用される。その場合、省、自治区、または直轄人民政府の衛生行政部門はその規格をまとめ、規定された内容が国家規格に準ずることを確認し、国务院衛生行政部門に届出をする。社内規格しか存在しない場合においてはそれを省、自治区、または直轄人民政府の衛生行政部門に届出をし、社内基準の遵守に留意しなければならない。

以上の点を踏まえた上で、コーデックス食品規格の項目を軸に中国に存在する食品規格の概要を関連させたものを図 3.4-3 に示す。コーデックス食品規格の各項目に対応して、例えば食品の「Scope (範囲)」、「Description (説明)」、「Essential Composition and Quality Factor (必須組成及び品質要件)」では、それぞれ該当する G B 規格で規定される。「Food Additives (食品添加物)」については食品に共通の G B 規格、G B 2760 (食品添加物の使用に関する衛生基準)、G B 14880 (栄養強化物質を食品に添加する際の衛生基準) が、また、「Contaminant (汚染物質)」には G B 2762 (食品中の汚染物質の最大許容量についての基準)、G B 2763 (食品中の残量農薬に関する最大許容量についての基準) がそれぞれ対応しているおり、基本的にはコーデックス食品規格に G B 規格がほぼ完全に対応している。「Weights and Measures (重量及び分量)」については日本の場合と同様に計量法に順ずる基準の J J F 1070 や国家輸出入検査検疫部門の基準が適用されている。

図 3.4-3 : 中国における食品規格の概要



より具体的な例としては後述する 3.4.3 個別食品規格の内容 にある具体的なケーススタディの事例を参照されたい。コーデックスの食品規格の項目を軸にして、各項目に対応するGB規格やその他の規格を図中にはめ込んでいくと、コーデックス規格に中国の食品関連の規格が比較的良く対応していることが分かる。すべての食品で必ずしも同様なことが認められるわけではないであろうが、国内規格とコーデックス規格との対応性という観点からみると良く整備されている。

3.4.3 個別食品規格の内容

コーデックス食品規格とGB規格及びその他の関連規格との対応性を比較するため、即席めん、炭酸飲料、調理冷凍食品の事例を用いて比較検討を行った。

3.4.3.1 ケーススタディ 1：即席めん

図 3.4-4：コーデックス食品規格と GB 規格（個別食品規格）

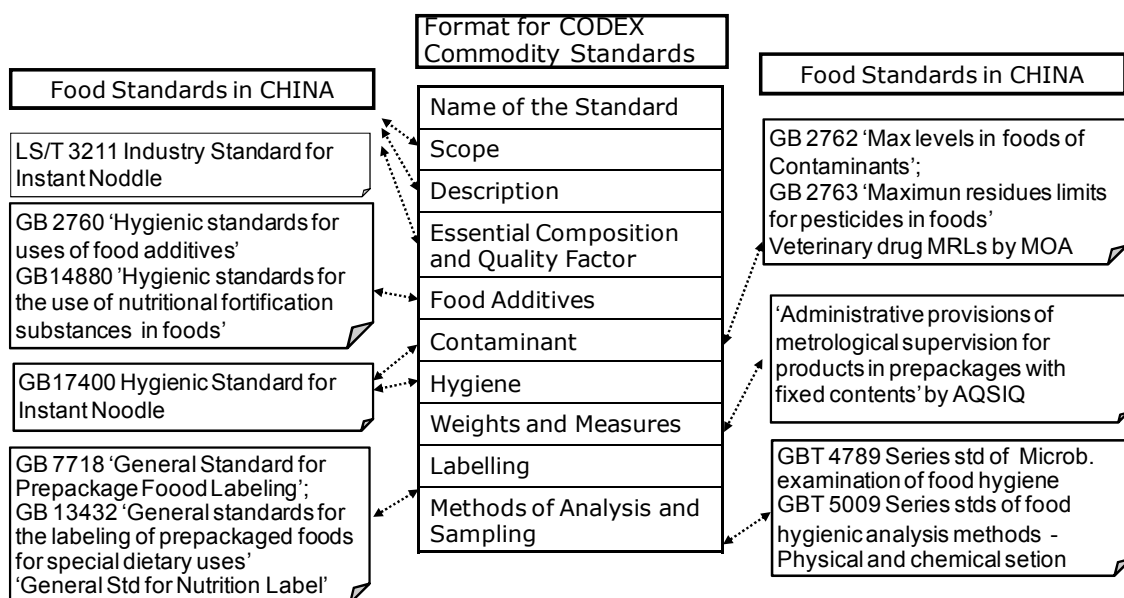


表 3.4-1 ケーススタディ 1 即席めん

	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 snape 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	≤	Fried	Non-fried	≤	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	
	Carbonyl 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	≤ 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 ケーススタディ 2 炭酸飲料

図 3.4-5 炭酸飲料における食品規格の概要図

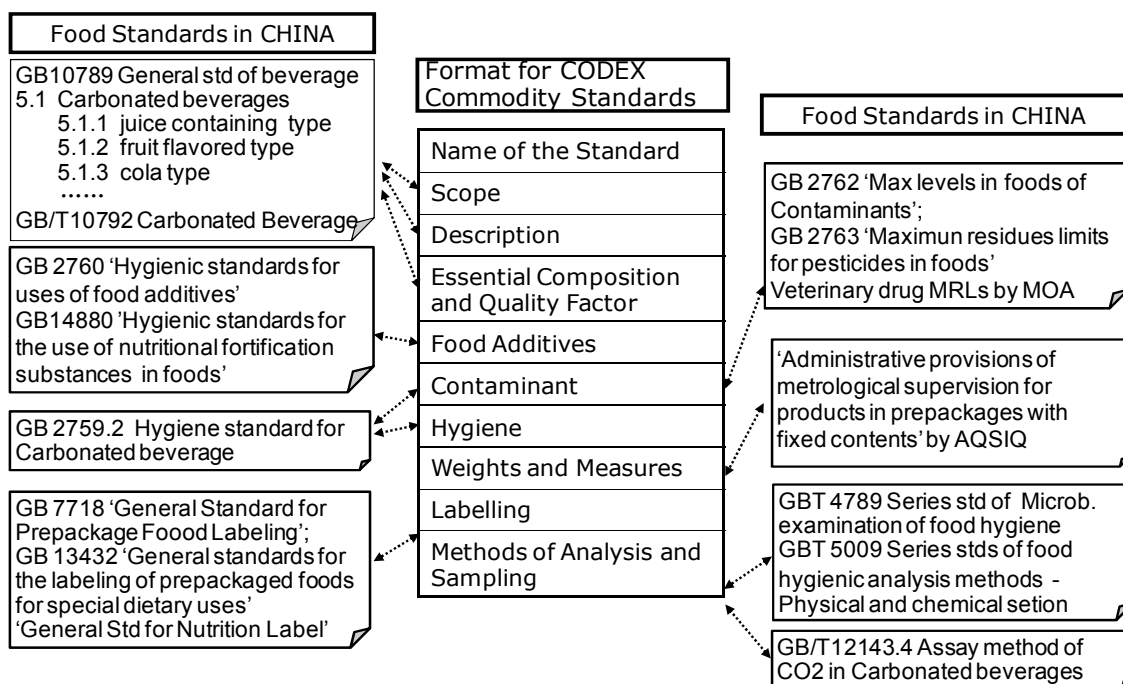


表 3.4-2 ケーススタディ 2 炭酸飲料

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. ● GB 12695 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 ケーススタディ 3 調理冷凍食品

図 3.4-6 調理冷凍食品における食品規格の概要図

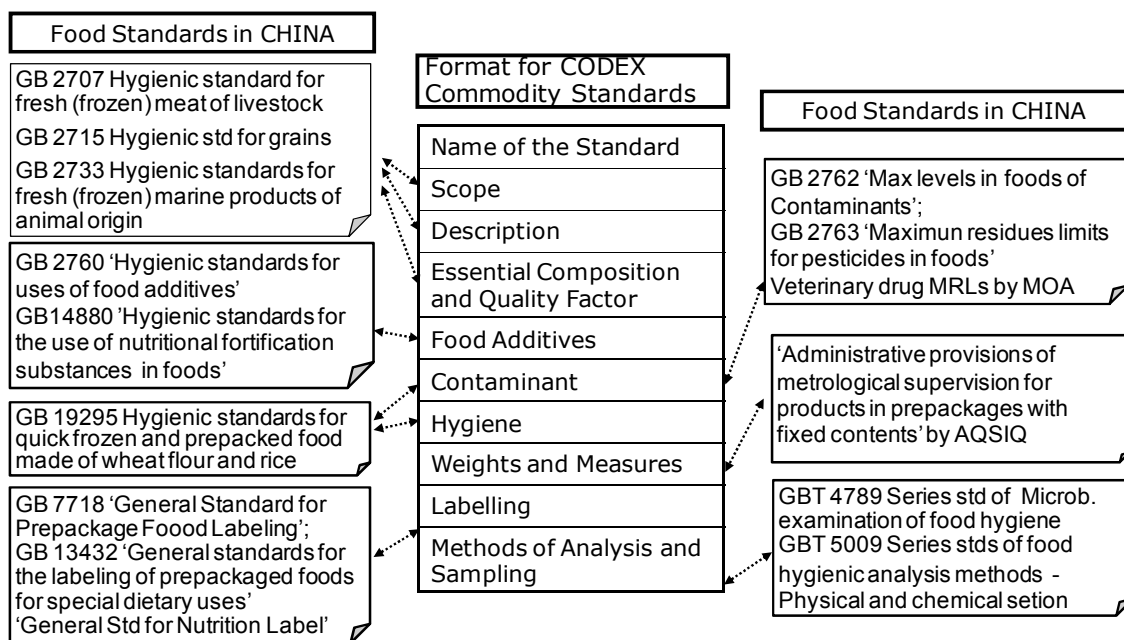


表 3.4-3 ケーススタディ 3 調理冷凍食品

Name of Standard	Contaminant and Physical/Chemical Index (≤)										
	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 μg/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 まとめ

今回、ケーススタディで取り上げた即席めん、炭酸飲料、調理冷凍食品において、コーデックス食品規格と中国のGB規格を中心とする関連規格との比較では比較的良好な対応性が認められた。しかしながら、食品安全法が施行されてからまだ日が浅く、食品規格の国家規格化への動きが始まった段階の中国においては、まだ未整備の分野もあると考えられ、今後の動向を注意深く観察する必要があると思われる。今回の調査では、国家規格の内容についての検討は未実施であり、今後の大きな課題として残る。また、食品規格の法体系を把握する上で鍵となる情報収集についても、公布された規格が国家標準化管理委員会のWeb上での確認となり、かつ、規格の表題については英語訳が準備されてはいるものの、本文にいたっては中国語以外の言語での情報がない点が大きな問題となっており、何らかの対応が必要と考える。

3.5 東南アジア（マレーシア、シンガポール、フィリピン）

3.5.1 マレーシア

3.5.1.1 食品行政

マレーシアの主要な食品安全・衛生管理行政機関は農務省と保健省であり、その主な役割分担を表 3.5-1 に示す。

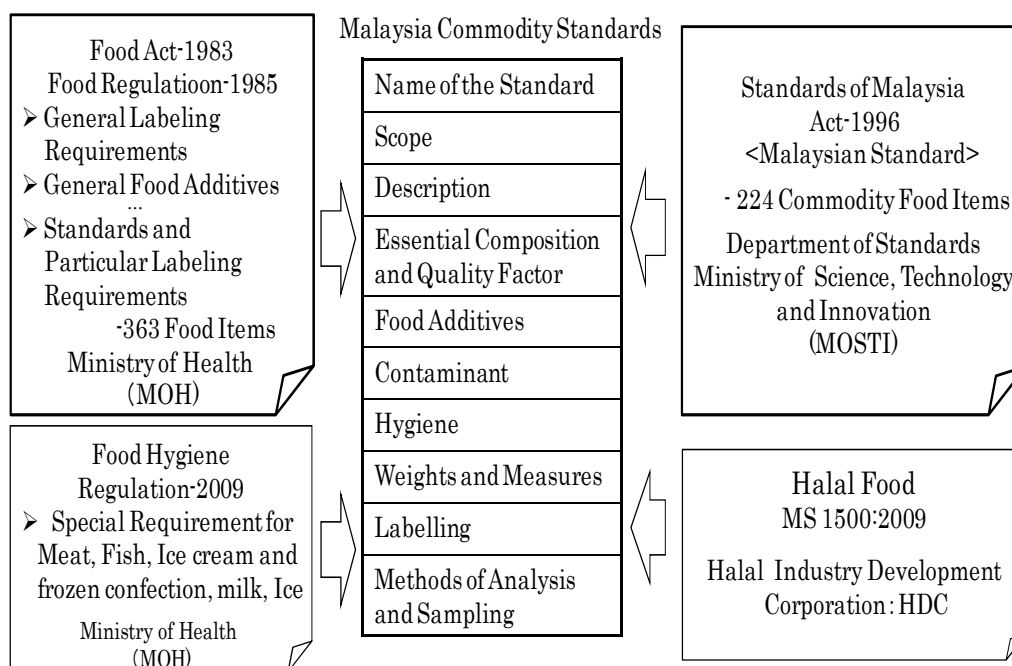
表 3.5-1

	生産・一次加工の安全・衛生管理	加工食品の安全・衛生管理
	農務省 (Ministry of Agriculture and Agro-Based Industry: MOA)	保健省 (Ministry of Health: MOH)
農産物	農務省農業省 (Department of Agriculture: DOA)	保健省 食品安全品質管理部 (Food Safety and Quality Division: FSQD)
水産物	農務省水産局 (Fisheries Department: DOF)	
畜産物	農務省動物局 (Department of Veterinary Services: DVS)	

3.5.1.2 個別食品規格に関連する法規概要

個別食品規格に関連する主要法規を示す（図 3.5-1）。

図 3.5-1



3.5.1.3 食品法（保健省（MOH））

（１）食品法-1983¹（Food Act-1983）

食品行政の要となる法律である。食品の生産・販売・使用における、健康被害と不正行為から国民を保護するために施行されている。同法は一般食品法として、食品の製造、販売における許容範囲を定めている。同法施行の義務遂行に必要な、保健省の追加の付則を定める権限を含む法的権限を関連当局に与えている。

（２）食品規則-1985²（Food Regulation-1985）

付則は食品規則-1985.として編集され、食品規則は改正及び新たな規定の制定に伴い継続的に更新されている。食品規則-1985は表示、食品添加物と栄養サプリメント、食品包装、汚染物質・微生物毒素等の一般要件に加え、第8章に363品目に関する個別食品規格と特別表示必要事項を収載している（表 3.5-2）。個別品目に関し、必要最低限の定義、成分規格、特別必要表示事項が規定されている。

（３）食品衛生規則-2009

食品衛生規則-2009³は、食品取扱業者のほか、食品施設における行為及び維持管理に対する衛生要件を規制している。同規則における食品施設は「あらゆる食品の製造、保存、包装、運搬、流通または販売、又はあらゆる食品の再ラベル貼付、再加工または再調整の目的に使用するあるいはそれらに関連する場所」としている。本規制はまた、肉・魚・アイスクリームおよび冷凍菓子・牛乳・氷についての取扱、製造、包装、供給、保管および販売に関する特別の規定を設けている。自動販売機に関しても同様の特別規則が制定されている。

3.5.1.4 マレーシア規格（Malaysian Standard）

個別食品規格の観点からは、科学技術革新省（MOSTI）が策定するマレーシア産業規格（Malaysian Standard: MS）が重要な位置を占めている。全産業を対象としたISO準拠の国家規格ではあるが、原則任意な規格である。

規格は表 3.5-3 に例示しているが、コーデックスでの個別食品規格と同様な構成となっている。

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

表 3.5-2 : 食品規則における個別食品規格

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	Wholemeal 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	Cardamom
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	Fruit Juice 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.

表 3.5-3 : マレーシア規格の構成

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	

MS は現在 6000 件近く策定されているが、国際標準分類 (ICS) コード 67 (食品技術) 分野で発効している規格は 2010 年 3 月現在 454 件あり、そのうち個別食品規格 (Specification) に関するものは 224 件ある (表 3.5-4)。これらは本来任意規格であるが、公的認証の取得により認証マークの表示が可能となる。

近年、生鮮野菜・果実を中心に農産物の MS 化が国策として進められており、2010 年 2 月末現在 30 品目 (表 3.5-4) が行政的にも参照される強制規格として登録されている。

表 3.5-4 : MS における個別食品規格

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, ldt)
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 ハラル制度

イスラム教義に従った食品等の原材料、製造工程、製品品質を審査、適合製品の認証と製品への表示を行う制度である。ハラル産業開発公社（HDC）が規格の審査とハラル産業の振興を担当している。主な具体的規格としてMS規格、MS 1500:2009が制定されている。マレーシア市場ではハラルマークのない食品は流通しないと言われるほどであり充分考慮する必要がある。

現在、マレーシア政府は「ハラル法」の制定の意向を表明しており、現行ハラル制度の上位概念に位置するものとなろう。詳細はまだ不明であるが、食品製造、流通、販売等への大きな影響が想定されている。

3.5.1.6 ケーススタディ

(1) 即席めん

食品規則-1985 ではヌードル、ビーフン、ラクサ、マカロニ、スパゲッティ等を含めた「パスタ」として規定されている

MS では Instant Wheat Noodle (MS 526:2009) がコーデックスで策定した Instant Noodles に準拠した規格となっている。Instant Beehoon (MS 1112:1988) と併せ比較してある (表 3.5-5)。

(2) 炭酸飲料

食品規則-1985、MS とともに我が国のような炭酸飲料のみでの規格は設定されていない。ともに一般的な清涼飲料に近い広範囲の品目を対象としている (表 3.5-6)。

(3) 調理冷凍食品

食品規則-1985 では冷凍菓子、冷凍肉、冷凍野菜の規格はあるが、日本の調理冷凍食品に近い規格はない。MS にも適切なものはないが比較的類似しているものを記載した (表 3.5-7)

表 3.5-5 ケーススタディ 1 即席めん

	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

表 3.5-6 ケーススタディ 2 炭酸飲料

	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

表 3.5-7 ケーススタディ 3 調理冷凍食品

	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 bat or 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 bat or 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)

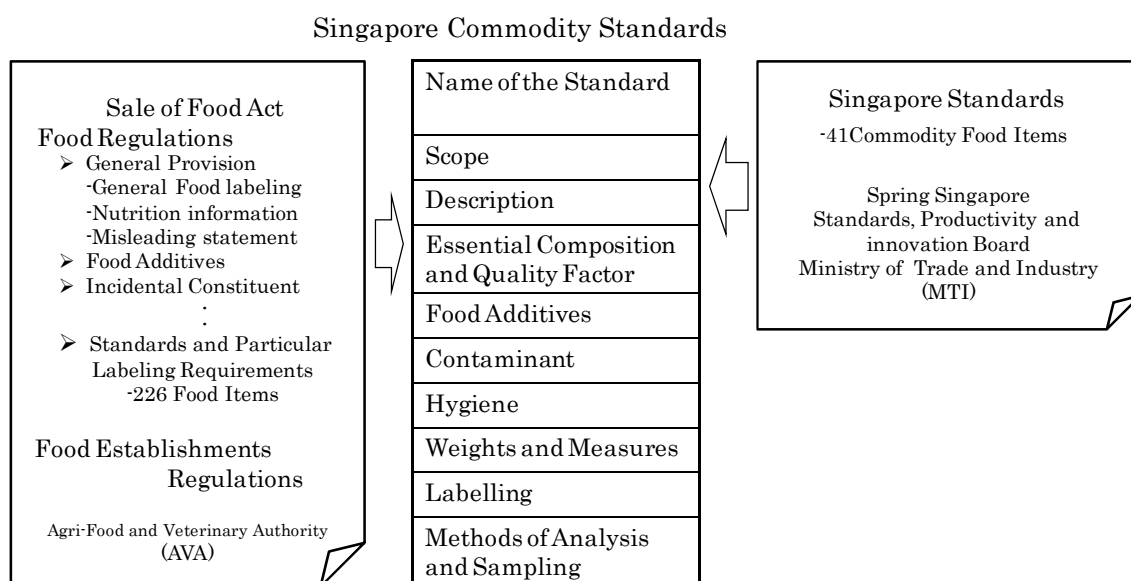
3.5.2 シンガポール

3.5.2.1 食品行政

シンガポールの食品の規格、安全・衛生管理にあたる行政機関は国家開発省 (Ministry of National Development) にある農食品・獣医庁 (Agri-Food and Veterinary Authority : AVA) に集約されている。AVA は食品に限らず、動物・ペット、農業・漁業といった広範囲な領域を管轄している。

3.5.2.2 食品法規体系と個別食品規格の概要関連図

図 3.5-2 にその関連図を示した。



3.5.2.3 食品法(Sale of Food Act)

AVA が一括管轄している。AVA はもともと一次生産物を管轄する局であったが、2000 年に食品安全への対応等から食品関連物資の品質と安全を統括管理するよう再編成されている。

(1) 食品販売法-2002¹ (Sale of Food Act)

食品の健全性および純度の確保および健康に有害あるいは危害を与える物の販売・処分・使用を防止するための食品規格の定着、食品施設規制の規定を目的に制定された。

1

http://www.ava.gov.sg/NR/ronlyres/OCA18578-7610-4917-BB67-C7DF4B96504B/8725/Attach59_legislation_SaleofFoodAct.pdf

(2) 食品規則-2006²(Food Regulation)

販売法の付則は食品規則として編集され、改正および新たな規定の制定に伴い継続的に更新されている。食品規則は表示全般、食品添加物、汚染物質・微生物毒素、容器包装、照射食品等の詳細一般要件を規定、第4章に 226 品目に関する個別食品規格と特別表示必要事項を収載している(表 3.5-8)。個別品目に関し、必要最低限の定義、成分規格、特別必要表示事項が規定されている。

(3) 食品施設規則-2009³ ((Food Establishment) Regulations)

食品販売法における食品施設規制は食品取扱業者および食品施設に対する一般食品衛生規準を定める。

3.5.2.4 : シンガポール規格

個別食品規格の観点からは、通商称産業省 (MTI) の規格生産性革新庁 (Standards, Productivity and Innovation Board : Spring Singapore) のもとで運営されているシンガポール産業規格 (Singapore Standard: SS) が存在する。ISO 準拠の全産業を対象とした国家規格ではあるが、原則任意な規格である (安全・環境・健康に関連して行政的に参照される場合は義務規格になることもある)。

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

³

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

表 3.5-8 : 食品規則による個別食品規格

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.

規格は表 3.5-9 に例示しているが、コーデックスでの個別食品規格と同様な構成となっている。

表 3.5-9 : シンガポール規格の構成

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	

食品規格策定委員会で策定された SS は 90 件弱で分析法、実施規範等を覗いた個別食品規格は 41 品目ある（表 3.5-10）。これらは任意規格であり、認証取得により認証マークの表示が可能となる。

3.5.2.5 ケーススタディ

(1) 即席めん

食品規則-2006 では様々なヌードル、ビーフン、マカロニ、スパゲッティ、“mee”等を含めた「パスタ」として規定されており、インスタントを特定しているものはない。SS も同様であり、乾麺・パスタ製品類（SS 219:1979）を参考のため記載している。（表 3.5-11）。

(2) 炭酸飲料

食品規則-2006 では炭酸飲料のみの規格は設定されていない。一般的な清涼飲料に近い広範囲の品目を対象としているが Soft Drink からの除外品目の幅が広いことが我が国との相違点である。SS における炭酸・非炭酸飲料（SS 62:1997）には炭酸飲料を含む広範囲の規格が設定されている（表 3.5-12）。

表 3.5-10：SS における個別食品規格一覧

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

食品規則-2006 には冷凍食品に特化した規格はない。SS にも、急速冷凍食品の処理と取り扱いに関する実施規範 (CP 46 : 1989) が存在するのみである。

表 3.5-11 ケーススタディ 1 即席めん

	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

表 3.5-12 : ケーススタディ 2 炭酸飲料

	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 フィリピン

フィリピンは憲法 (The 1987 Constitution of the Philippines) ¹に、「国家は効果的食品及び医薬品に関する規制制度を確立し維持し、国家の保健に関する必要性および問題に対応した最適な健康、人的資源開発および研究に取り組まなければならない」とし、これを基本法として消費者法²で「消費者向け製品の安全および品質規格の策定および提供」を求め、食品、医薬品に関して保健省にその実施措置を付与している。

3.5.3.1 食品行政

フィリピンの主要な食品安全・衛生管理行政機関は保健省と農務省であり、その主な役割分担を表 3.5-13 に示す。

表 3.5-13

	農産物及び一次加工の 安全・衛生管理	加工食品の安全・衛生管理
	農務省 (Department of Agriculture : DA)	保健省 (Department of Health: MOH)
農産物	植物産業局 (Bureau of Plant Industry: BPI)	食品医薬品局* (Bureau of Food and Drugs: BFAD) *2009.8 に機能及び投入資源の 強化をはかるべく法改正があ り、名称も、Food and Drug Administration:FDA と改名され ている。
水産物	水産資源局 (Bureau of Fisheries and Aquatic Resources: BFAR)	
畜産物	動物産業局 (Bureau of Animal Industry: BAI) 国家食肉検査サービス (National Meat Inspection Service: NMIS)	
	農水産物基準局 (Bureau of Agricultural and Fisheries Product Standard: BAFPS)	

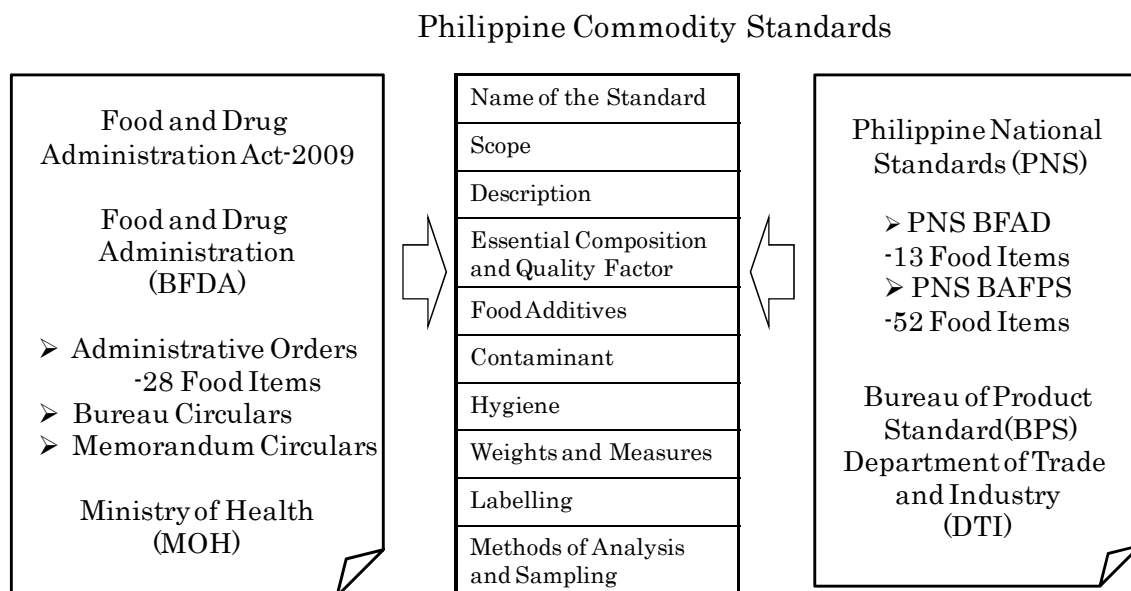
¹ http://www.gov.ph/index.php?option=com_content&task=view&id=200034&Itemid=26

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

3.5.3.2 食品法規体系と個別食品規格

図 3.5-3 にその関連図を示した。

図 3.5-3 : フィリピンの個別食品規格と関連法規



(1) 食品医薬品管理法³

共和国法第 9711 (第 3720 の 2009 年改定版) として知られているフィリピン共和国の主要な食品法である。

同法は「食品、化粧品安全性および純正度、および国民が利用する医薬品および医療機器の安全性、有効性、品質を」確保することを目的に制定されており、保健省 (MOH) に、食品規格品質評価方法の設定、清潔で安全な食品供給のための対策等の規制政策の施行の権限を与えている。

同法はさらに、食品医薬品管理局 (BFDA) に法の運営および施行の責任を委譲しており、食品ならびに医薬品の安全性に関する規定、規則および規格の策定、および食品および医薬品の健康および栄養強調表示に関する一般規格ならびにガイドライン等の策定を委託している。

具体的規則は、同局からの行政命令 (AO)、局通達 (BC)、局通知、(MC) の公布をもって実行される。

(2) 行政命令、通達⁴

個別食品規格に相当する AO を表 3.5-14 に示した。

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

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

表 3.5-14 行政命令による個別食品規格

Administrative Order	Title
A0 125 s. 1970	Regulation prescribing the Standard of Identity and Fill of Container for Canned Pineapple Juice (B-4.7-01)
A0 129 s. 1970	Regulation prescribing the Standard of Identity and Quality of Bagoong (Fish or Shrimp) (B-4.7-01)
A0 132 s. 1970	Regulation prescribing the Standard of Identity and Quality of Milk and Milk Products
A0 134 s. 1970	Regulation prescribing the Standard of Identity and Quality of Vinegar
A0 154 s. 1971	Regulation B-4 Definition and Standards of Identity of Foods: 4.14 Meat and Meat Products 4.14.01 Sausages
A0 200-A s. 1973	Regulation B-4 Definition and Standards of Identity of Foods: 4.5 Cheese and Cheese Products
A0 228 s. 1974	Regulation B-4 Definition and Standards of Identity of Foods: 4.17 Nut Products 4.17.01 Peanut Butter
A0 230 s. 1974	Regulation B-4 Definition and Standards of Identity of Foods: 4.15 Fats and Oils 1.15.01 Shortening
A0 231 s. 1974	Regulation B-4 Definition and Standards of Identity of Foods: 4.15 Fats and Oils 4.15.02 Lard
A0 232 s. 1974	Regulation B-4 Definition and Standards of Identity of Foods: 4.18 Margarine
A0 233 s. 1974	Regulation B-4 Definition and Standards of Identity of Foods: 4.9 Condiments, Sauces, Seasoning 4.9.01 Tomato Catsup (Catsup)
A0 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)
A0 236 s. 1975	Regulation B-4 Definition and Standards of Identity of Foods: 4.6 Dressings for Food 4.6.03 Salad Dressing
A0 237 s. 1975	Regulation B-4 Definition and Standards of Identity of Foods: 4.6 Dressings for Food 4.6.02 French Dressing
A0 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)
A0 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)
A0 243 s. 1975	Regulation B-4 Definition and Standards of Identity of Foods: 4.18 Margarine
SA0 257 s. 1976	Standardization of Rum
SA0 258 s. 1976	Standardization of Vodka
SA0 259 s. 1976	Standardization of Whiskies
A0 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
SA0 356 s. 1978	Standardization of Beer
SA0 358 s. 1978	Standardization of Brandies
A0 123-A s. 1985	Standard for Banana Sauce
A0 136-A s. 1985	Standard of Instant Coffee
A0 136-B s. 1985	Standard for Soluble Coffee with Added Carbohydrates
A0 18-A s. 1993	Standard of Quality and Requirement for the Processing, Packaging and Labeling of Bottled Drinking Water
A0 2005-0018	Philippine National Standards on Ethnic Food Products

限定された範囲であり、現在、規格化の途上のようなものである。迅速な対応が必要な場合には、後述のフィリピン国家規格の枠組みのなかで、連携して義務規

格として策定している。個別食品規格の構成要素に関して A0, BC で規定されている事例を以下に示す。

食品添加物	<ul style="list-style-type: none"> • BC 2006-16：食品添加物最新リスト
衛生	<ul style="list-style-type: none"> • A0 153s. 2004：製造、包装、再包装あるいは保存の GMP ガイドライン • BC 01-as. 2004：加工食品の微生物学的品質評価のためのガイドライン
表示	<ul style="list-style-type: none"> • A0 16s. 1979：包装済み食品の期限表示 • A0 88-Bs. 1984：フィリピンで販売される包装済み食品の表示管理規定 • BC No. 9s 1999：包装済み加工食肉製品の表示 • BC 2007-002：食品の栄養および健康強調表示使用のガイドライン
重量及び分量	<ul style="list-style-type: none"> • BC 6As. 1988：包装食品における正味量許容範囲

(3) フィリピン国家規格 (Philippine National Standard: PNS)

個別食品規格の観点からは、通商産業省 (Department of Trade and Industry: DTI)、製品基準化局 (Department of Product Standard: DPS) が策定するフィリピン国家規格 (PNS) が重要な位置を占めている。全産業を対象とした ISO 準拠の国家規格の枠組みの中にある。原則任意な規格であり、公的認証の取得により、認証マークの表示が可能となる。規格の構成はコーデックスの個別食品規格と同様であり、その事例を表 3.5-15 に示す。

表 3.5-15 フィリピン規格の構成

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	

食品に関する ICS コード 67 (食品技術) にある PNS は総数 89 件ある。食品薬品管理庁 (BFAD) と連携して策定した規格番号に PNS BFAD を持つ 21 規格は義務規格 (表 3.5-16) となり、加工処理の実施規範等を除いた個別食品規格は 13 規格存在する。

表 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)

同様に、農水産物基準局（BFAPS）と連携して策定し、規格番号に PNS BFAPS を持つ生鮮食品関連の規格がある。表 3.5-17 に個別食品の規格、等級・分類に関し規定している規格を記載している。これらも義務規格となる。

表 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 ケーススタディ

(1) 即席めん

類似する品目として Pancit Conton (PNS BFAD 18:2008) を記載している。インスタント焼きそば的な食品である (表 3.5-18)。

(2) 炭酸飲料

我が国のような炭酸飲料のみの規格は設定されていない。柑橘飲料 (PNS BFAD 11: 2007) として、我が国の清涼飲料水のような広い範囲に適用できる国家規格が存在する (表 3.5-19)。

(3) 調理冷凍食品

冷凍、イカ、エビ、魚等の規格はあるが、我が国の調理冷凍食品に近い規格はない。

表 3.5-18 ケーススタディ 1 即席めん

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</p>

	<p>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 “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

	<p>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

表 3.5-19 ケーススタディ 2 炭酸飲料

Standard	PNS/BFAD 11:2007
Item	
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 and	<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</i> Juice; <i>Dalandan</i> Juice Powder); 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 まとめ

今回調査した3ヶ国に共通して感じられるのは、コーデックス委員会、国際標準化機構（ISO）等に準拠した食品法制度の構築を通じ、ASEAN 諸国内での法規制調和の推進、WTO に代表される国際社会との調和強化の意図である。輸出国としての農水畜産物の安全性と品質向上は国を挙げての課題となっている。

4. 総括報告

今回、韓国についてとりあげた3つの食品規格においては、Food Code と KS 規格との間で設定された項目の顕著な違いは見られなかった。また、いくつかの JAS 規格でみられる食品添加物の使用制限はなく、安全性面の基準は Food Code でカバーされる合理的な内容と判断できる。一方、分析法については KS 規格の方で細かく指定されており、KS 規格による品質の優位性は厳格な分析に基づく GMP 的視点から支えられていることが伺える。今後は、他の食品規格でも比較を行うと同時に、分析法について規定した KS「手順規格」についても調査し、日本で定められた分析法や国際基準との比較を実施することでより KS 規格の特徴について明確にすることがハーモナイゼーションの観点から重要と考える。

中国に関するケーススタディで取り上げた即席めん、炭酸飲料、調理冷凍食品において、コーデックス食品規格と中国の GB 規格を中心とする関連規格との比較では比較的良好な対応性が認められた。しかしながら、食品安全法が施行されてからまだ日が浅く、食品規格の国家規格化への動きが始まった段階の中国においては、まだ未整備の分野もあると考えられ、今後の動向を注意深く観察する必要があると思われる。今回の調査では、国家規格の内容についての検討は未実施であり、今後の大きな課題として残る。また、食品規格の法体系を把握する上で鍵となる情報収集についても、公布された規格が国家標準化管理委員会の Web 上での確認となり、かつ、規格の表題については英語訳が準備されてはいるものの、本文にいたっては中国語以外の言語での情報がない点が大きな問題となっており、何らかの対応が必要と考える。

今回調査した東南アジア3か国（マレーシア、シンガポール、フィリピン）に共通して感じられるのは、コーデックス委員会、国際標準化機構（ISO）等に準拠した食品法制度の構築を通じ、ASEAN 諸国内での法規制調和の推進、WTO に代表される国際社会との調和強化の意図である。輸出国としての農水畜産物の安全性と品質向上は国を挙げての課題となっている。

5. ワークショップ

本調査の結果について、当該各国の調査担当者（担当 ILSI 支部）とともに、別紙のとおりワークショップを開催し、結果を共有した。また、同ワークショップには、国内食品企業から130名を超える参加者があり、東アジア地域各国の食品法制度に対する関心の高さが明らかとなった（当日配布資料を添付）。

平成 21 年度食品産業競争力強化対策事業関係補助金
農林水産省総合食料局関係事業
東アジア食品産業海外展開支援事業

ワークショップ
「東アジアの食品等の規格基準の調査と結果の共有化」

【日 時】 平成 22 年 3 月 29 日（月） 午後 2 時 30 分～5 時 30 分
（受付開始 午後 2 時より）

【場 所】 ホテルルポール麹町 3F 「マーブル」
東京都千代田区平川町 2 - 4 - 3
http://www.leport.jp/map/acsses_b.html

【主 催】 ILSI Japan（特定非営利活動法人国際生命科学研究機構）

【内 容】 （同時通訳付き）

- 1．開会挨拶：岩元睦夫（ILSI Japan 理事、(社)農林水産先端技術産業振興センター 理事長）
- 2．事業主旨説明：齋藤勇一（農林水産省総合食料局産業企画課食品企業班課長補佐）
- 3．総括報告 - コーデックスと日本の食品規格：浜野弘昭（ILSI Japan 事務局長）
- 4．東アジア地域における法的枠組みと個別食品規格
 - 4 - 1 韓 国：Dr. Myeong Ae Yu（Executive Director, ILSI Korea）
 - 4 - 2 中 国：Dr. Li Yu（Scientific and Regulatory Affairs, Mars Foods（China）, ILSI Focal Point in China）
 - 4 - 3 東南アジア地域 - シンガポール、マレーシア、フィリピンを中心として：
Ms. Pauline Chan（Scientific Program Senior Manager, ILSI SEA Region）
- 5．総合討論（質疑応答を含む）
- 6．閉 会
- 7．名刺交換会

**Workshop on
“Investigation of Commodity Food Standards
and Analytical Methods in Asia”**

Date: March 29, Monday, 2010 14:30 17:30

Place: Hotel Le Port Kojimachi, Tokyo

Agenda:

- 1. Opening: (Dr. Mutsuo Iwamoto, ILSI Japan Board of Trustees, President of Society for Techno-innovation of Agriculture, Forestry and Fisheries)**
- 2. Introduction of the MAFF Project: (Mr. Yuuichi Saito, Deputy Director, Food Industry Policy Division, General Food Policy Bureau, MAFF)**
- 3. General Reports: Commodity Food Standards in Codex and Japan (20 min.) (Mr. Hiroaki Hamano, Executive Director, ILSI Japan)**
- 4. Regulatory Framework on Foods & Case Studies in Asia**
 - 4.1. Korea (30 min.)(Dr. Myeong Ae Yu, Executive Director, ILSI Korea)**
 - 4.2. China (30 min.)(Dr. Li Yu, Scientific and Regulatory Affairs, Mars Foods (China) , ILSI Focal Point in China)**
 - 4.3. South East Asian Countries Singapore, Malaysia and Philippines (50 min.) (Ms. Pauline Chan, Scientific Program Senior Manager, ILSI SEA Region)**
- 5. Discussions (Q & A and others) (30 min.) (All participants)**
- 6. Closing**
- 7. Exchange of Business Cards**

平成21年度農林水産省総合食料局関係事業
東アジア食品産業海外展開支援事業

東アジアの食品等の規格基準、
分析方法の調査と結果の共有化

ILSI Japan 国際協力委員会
浜野弘昭

平成21年度農林水産省総合食料局
関係事業に係る公募

- 1 食農連携体制強化事業
- 2 食品産業支援情報発信機能強化事業
- 3 食農連携機能高度化支援事業
- 4 農水産物機能性活用推進事業
- 5 地域食品ブランド育成・管理支援事業
- 6 食品産業構造調査
- 7 食農連携促進技術対策事業
- 8 地域食品産業の技術開発力向上支援事業
- 9 外食産業・農業等連携ビジネス確立等事業
- 10 食品産業事業継続計画整備促進事業
- 11 食品産業H A C C P等普及促進事業
- 12 食品産業表示推進事業
- 13 食品企業信頼確保対策推進事業
- 14 食品産業CO₂削減促進対策事業
- 15 食品廃棄物発生抑制推進事業
- 16 食品循環資源経済的処理システム実証事業
- 17 容器包装リサイクル法制度円滑化推進事業
- 18 バイオマスプラスチック容器包装再商品化システム検討事業
- 19 外食産業バイオマス利用実験事業
- 20 東アジア食品産業海外展開支援事業
- 21 効率的食品流通取引基盤確立推進事業
- 22 食品小売機能高度化促進事業
- 23 新技術活用ビジネスモデル実証・普及事業
- 24 地域流通モデル構築支援事業
- 25 食品小売業コスト縮減・機能強化構造改善事業
- 26 食品流通高付加価値モデル推進事業
- 27 新規米加工品需要開発事業
- 28 海外日本食優良店普及促進事業
- 29 につぼん食育推進事業のうち主食摂取増進対策事業

平成21年度農林水産省総合食料局関係事業

20.東アジア食品産業海外展開支援事業

〔対策のポイント〕: 我が国食品産業の東アジア地域(韓国、中国、ASEAN諸国およびインド)における事業展開を支援することにより、東アジア地域の活力を活かした国際競争力の強化を図る。

〔政策目標〕: 東アジアにおける我が国食品産業現地法人の活動規模を5年で3～5割上昇

売上高 約84億ドル(17年度基準) →
110～125億ドル程度(22年度)

平成21年度農林水産省総合食料局関係事業

20.東アジア食品産業海外展開支援事業

〔趣旨〕: 国内市場の量的飽和と成熟化に直面している我が国食品産業の経営体質、国際競争力の強化を図るため、人口増加と高い経済成長により魅力的な市場を形成しつつある東アジア地域における事業の展開を促進する取り組みを支援する。

〔事業内容〕: 東アジア地域内での円滑なビジネス展開に資するため、食品等の規格・基準や残留農薬の分析方法等の統一の可能性等に関する調査、各国専門家によるワークショップ開催等を行う。

平成21年度農林水産省総合食料局関係事業
東アジア食品産業海外展開支援事業

〔課題名〕: 東アジアの食品等の規格基準、分析方法の調査と結果の共有化

〔調査概要〕: 東アジア地域での食材、食品の流通を拡大するため、主要な国々での主たる食品等の規格基準や残留農薬基準およびそれらの分析方法を調査し、それらの相違点、および今後統一あるいは調和を図るための課題を抽出した。

〔調査対象国〕: 東アジア地域諸国における市場性(人口等)、日本の進出企業動向、今後の将来性等から、特に韓国、中国、マレーシア、シンガポール、フィリピン、インドネシア、タイ、ベトナム(8か国)を調査対象とした。

平成21年度農林水産省総合食料局関係事業
東アジア食品産業海外展開支援事業

〔調査対象食品(群)〕: 調査プログラム設計に際し、当面パイロットプログラムとして、即席めん、炭酸飲料、冷凍調理食品および食品添加物を対象とした。

〔実施方法〕: 本事業は、特定非営利活動法人 国際生命科学研究機構(ILSI Japan)が中心となりプログラム設計を行ない、ILSIの国際的ネットワーク、特にILSI 韓国、中国、東南アジア地域(ASEAN諸国)各支部に参加を求め、調査を進めた。

〔実施体制〕: ILSI Japan では、「国際協力委員会」内にプロジェクトチームを立ち上げ、プログラム設計、調査対象食品の選択について、協力ILSI支部(韓国、中国、東南アジア地域)との調整の後、最終決定した。

平成21年度農林水産省総合食料局関係事業
東アジア食品産業海外展開支援事業

〔総事業費〕: 8,370,000 円

〔実施スケジュール〕:

予備調査、プログラム(調査表)設計: 平成21年6～8月
調査表の記述: 平成21年9～12月
調査表の集計、課題の抽出: 平成22年1～2月
ワークショップの開催: 平成22年3月
(平成22年3月29日(月)午後、東京)
報告書の作成: 平成22年3月

平成21年度農林水産省総合食料局関係事業
東アジア食品産業海外展開支援事業

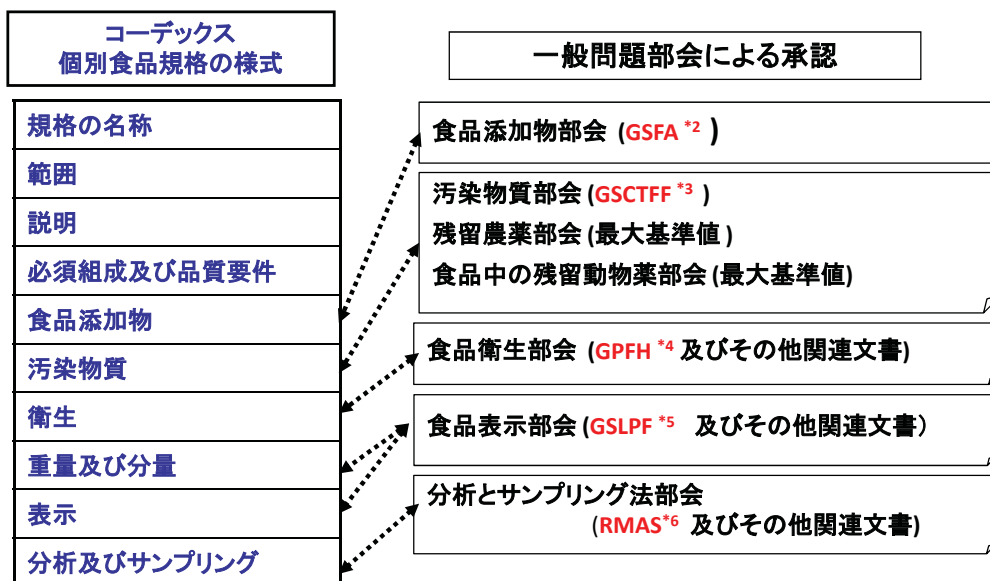
〔国際協力委員会〕:

阿部圭一 (Cerebos Pacific Ltd.)
太田裕見 (サントリーウエルネス株)
荻原葉子 (味の素株)
金子清久 (日本コカ・コーラ株)
香村正徳 (味の素株) ASEAN Regional HQs)
鈴木幸雄 (シッフズジャパン)
関谷史子 (高砂香料工業株)
高橋智子 (ネスレ日本株)
古瀬公士 (ユニリーバ・ジャパン・ビバレツジ株)
岩田修二 (ILSI Japan)
末木一夫 (ILSI Japan)
浜野弘昭 (ILSI Japan)

東アジアの食品等の規格基準、 分析方法の調査と結果の共有化

調査表：日本

コーデックス個別食品規格の作成*1

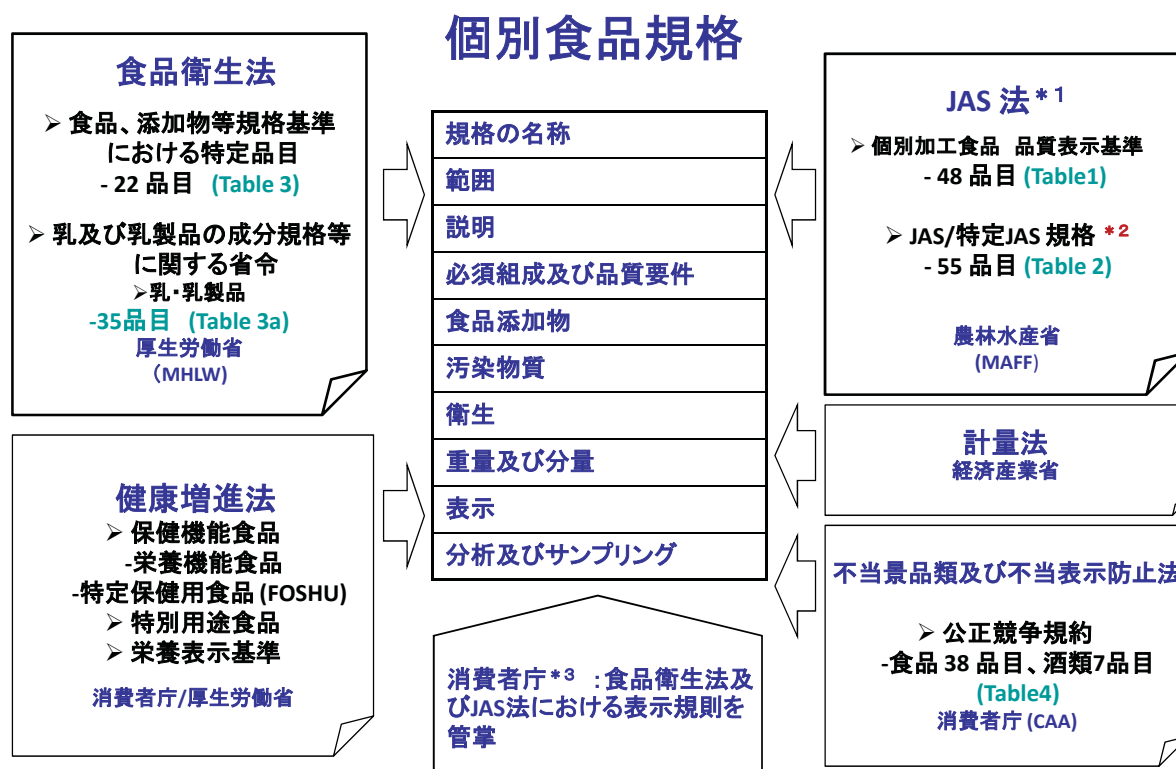


*1 Codex Procedural Manual : コーデックス手続きマニュアル: 第3節 コーデックス規格と関連文書の作成
*2 Codex Stan 192-1955: 食品添加物一般規格 *3 Codex Stan 193-1995: 食品及び飼料中の汚染物質一般規格
*4 CAC/RCP1-1969: 食品衛生一般原則 *5 Codex Stan 1-1985: 包装食品表示一般規格
*6 Codex Stan 234-1999: 推奨分析とサンプリング方法

Codex Standards (Commodity Standards)

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
⋮		
293	Standard for Tomatoes	2008
296	Standard for Jams, Jellies and Marmalades	2009
297	Standard for Certain Canned Vegetables	2009

200 Items (2009) (<http://www.codexalimentarius.net>)



*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

一般的に適用される品質表示基準

- > 生鮮食品品質表示基準
- > 加工食品品質表示基準
- > 遺伝子組換え食品に関する品質表示基準

Table1 個別加工食品品質表示基準一覧

2010.2

食料缶詰め及び食料瓶詰		15	チルドミートボール
1	農産物缶詰及び農産物瓶詰	16	魚肉ハム及び魚肉ソーセージ
2	畜産物缶詰及び畜産物瓶詰	17	特殊包装かまぼこ類(平成21. 9. 30廃止)
3	調理食品缶詰及び調理食品瓶詰	18	風味かまぼこ(平成21. 9. 30廃止)
飲料		穀物加工品	
4	果実飲料	19	乾めん類
5	炭酸飲料 (Case Study 2)	20	即席めん (Case Study 1)
6	豆乳類	21	マカロニ類
7	にんじんジュース及びにんじんミックスジュース	22	凍り豆腐
食肉製品及び魚肉ねり製品		23	パン類
8	ベーコン類	農産物及び林産物加工品	
9	ハム類	24	農産物漬物
10	プレスハム	25	トマト加工品
11	混合プレスハム	26	ジャム類
12	ソーセージ	27	干しいたけ
13	混合ソーセージ	水産物加工品n	
14	チルドハンバーグステーキ	28	うに加工品

Table 1 . つづき

29	うにあえもの	油脂及び油脂加工品	
30	乾燥わかめ	43	食用植物油
31	塩蔵わかめ	44	マーガリン
32	削りぶし	その他	
33	煮干魚類	45	レトルトパウチ食品
34	うなぎ加工品	46	野菜冷凍食品
調味料		47	チルド餃子類
35	ドレッシング及びドレッシングタイプ	48	調理冷凍食品 (Case Study 3)
36	食酢		
37	風味調味料		
38	乾燥スープ		
39	ウスターソース		
40	しょうゆ		
41	みそ		
42	めん類等用つゆ		

□ 一般 JAS規格			
食料缶詰及び食料瓶詰		農産物加工品	
1	農産物缶詰及び農産物瓶詰	22	農産物漬物
2	畜産物缶詰及び畜産物瓶詰	23	トマト加工品
3	水産物缶詰及び水産物瓶詰	24	ジャム類
飲料		水産物加工品	
4	果汁飲料	25	削りぶし
5	リンゴストレートピュアジュース	26	煮干魚類
6	炭酸飲料 (Case Study 2)	糖類	
7	豆乳類	27	ぶどう糖
8	にんじんジュース及びにんじんミックスジュース	28	異性化液糖及び砂糖混合異性化液糖
食肉製品		調味料	
9	ベーコン類	29	ドレッシング
10	ハム類	30	醸造酢
11	プレスハム	31	風味調味料
12	ソーセージ	32	乾燥スープ
13	混合ソーセージ	33	ウスターソース類
14	ハンバーガーパティ	34	しょうゆ
15	チルドハンバーグステーキ	油脂及び油脂加工品	
16	チルドミートボール	35	食用植物油脂
穀類加工品		36	精製ラード
17	乾めん類	37	マーガリン類
18	即席めん (Case Study 1)	38	ショートニング
19	マカロニ類	39	食用精製加工油脂
20	植物性たん白	その他の加工食品	
21	パン粉	40	調理冷凍食品 (Case Study 3)

Table 2 . つづき

□ 特定JAS規格	
41	熟成ベーコン類
42	熟成ハム類
43	熟成ソーセージ類
44	手延べ干しめん
45	地鶏肉
□ 有機 J A S 規格	
46	有機農産物
47	有機加工食品
48	有機飼料
49	有機畜産物
□ 生産情報公表JAS 規格	
50	生産情報公表牛肉
51	生産情報公表豚肉
52	生産情報公表農産物
53	生産情報公表加工食品
54	生産情報公表養殖魚
□ 定温管理流通JAS 規格	
55	定温管理流通加工食品

食品、添加物等規格基準における特定品目一覧

Table 3

2009.9

1	清涼飲料水 (Case Study 2)	12	ゆでだこ、
2	粉末清涼飲料	13	ゆでがに
3	氷雪	14	生食用鮮魚介類
4	氷菓	15	生食用かき
5	食肉・鯨肉(冷凍用鯨肉を除く)	16	寒天
6	食鳥卵	17	穀類、豆類及び野菜
7	血液・血球・血漿	18	生あん
8	食肉製品	19	豆腐
9	鯨肉製品	20	即席めん (Case Study 1)
10	魚肉ねり製品	21	冷凍食品 (Case Study 3)
11	いくら、すじこ、たらこ	22	容器包装詰加圧加熱殺菌食品

注: これら規格は成分規格、製造基準、保存基準より構成される。

1.Details of Food Additives are available in English

<http://www.mhlw.go.jp/english/topics/foodsafety/foodadditives/index.html>

2.Details of Agricultural Chemical Residues are available in English

<http://www.mhlw.go.jp/english/topics/foodsafety/positivelist060228/index.html>

乳及び乳製品の成分規格一覧

Table 3 a

原料乳		9	濃縮乳
A	生乳	10	脱脂濃縮乳
B	生山羊乳	11	無糖練乳
飲用乳		12	無糖脱脂練乳
1	牛乳	13	加糖練乳
2	特別牛乳	14	加糖脱脂練乳
3	殺菌山羊乳	15	全粉乳
4	成分調整牛乳	16	脱脂粉乳
5	低脂肪牛乳	17	クリームパウダー
6	無脂肪牛乳	18	ホエイパウダー
7	加工乳	19	たんぱく質濃縮ホエイパウダー
乳製品		20	バターミルクパウダー
1	クリーム	21	加糖粉乳
2	バター	22	調整粉乳
3	バターオイル	23	発酵乳
4	プロセスチーズ	24	乳酸菌飲料(無脂肪固形分3%以上)
5	濃縮ホエイ	25	乳飲料
6	アイスクリーム	乳等を主要原料とする食品	
7	アイスマルク	1	乳酸菌飲料(無脂肪固形分3%未満)
8	ラクトアイス		

Table 4 表示に関する公正競争規約一覧

2010.2

牛乳・乳製品		19	即席めん類 (Case Study 1)
1	飲用乳	20	みそ
2	はっ酵乳・乳酸菌飲料	菓子類	
3	殺菌乳酸菌飲料	21	ビスケット類
4	ナチュラルチーズ・プロセスチーズ・チーズフード	22	チョコレート類
5	アイスクリーム類	23	チョコレート利用食品
はちみつ類		24	チューイングガム
6	はちみつ類	25	観光土産品
7	ローヤルゼリー	調味料	
水産物加工食品		26	食酢
8	うに食品	27	合成レモン
9	辛子めんたいこ食品	28	マーガリン類
10	削りぶし	29	ドレッシング類
11	食品のり	30	しょうゆ
農水産物加工食品		31	食用塩
12	缶詰食品	飲料	
13	トマト加工品	32	果実飲料等
14	粉わさび	33	コーヒー飲料等
15	生めん類	34	レギュラーコーヒー・インスタントコーヒー
16	凍り豆腐	35	もろみ酢
17	豆乳類	畜肉加工食品	
18	包装食パン	36	ハム・ソーセージ等

Table 4 . つづき

アルコール飲料	
37	ビール
38	輸入ビール
39	ウイスキー
40	輸入ウイスキー
41	単式蒸留しょうちゅう
42	泡盛
43	酒類小売業
生鮮食品	
44	食肉
45	鶏卵

Food Category System (GSFA Annex B)

- 06.4 Pasta and noodles and like products
- 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**

Case Study 1 : Instant Noodle

JAPAN

Standard Item	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.....	● Fried noodles	● 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	● Acid value not more than 3 mg KOH/g oil ● Peroxide value not more than 30 meq/kg	● Wheat flower and/or buckwheat flower as the main ingredients ● Add salt or lye water	● 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)

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

• Quality Labelling Standard for Processed Foods under JAS Law

• General Compositional Standard for Food; General Food Production Processing and Preparation Standards; General Food Storage Standards under Food Sanitation Act

Case Study 1 cont.

Standard Item	Codex Commodity Standard	Food Sanitation Act	JAS Law	
		Standard for specific Items	Quality Labelling Standard	JAS Standard
Food Additives	MRLs of GSFA			● Positive List (limited use)
Contaminant	MRLs of GSCTFF			
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

Case Study 2 cont.

JAPAN

Name of the Standard
Scope
Description
Essential Composition and Quality Factor
Food Additives
Contaminant
Hygiene
Weights and Measures
Labelling
Methods of Analysis and Sampling

Food Sanitation Act Standard for Specific Items

Soft Drink Beverages (covers 14.1 non-alcoholic ("soft") beverages)

Non-alcoholic (less than 1% alcohol) beverages, excluding lactic acid bacterial drinks, milk and milk drinks

- 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
- For beverages made for solely apple juices and/or juiced fruit, the patulin content must not exceed 0.050 ppm

- Production Standards,
- Package Standards
- Storage Standards

- 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

JAS Law

Quality Labelling Std.	JAS Std.
Fruits Juice and fruit beverages	Fruits Juice add fruit beverages
Carbonated soft drinks	Carbonated soft drinks
Soy milks	Soy milks
Carrot juice, mixed carrot juice	Carrot juice, mixed carrot juice
	Apple straight pure juice

***Each standard has it's own Scope, Description and other Items**

Case Study 2 cont.

Carbonated Soft Drinks (JAS Law)

JAPAN

	Quality Labeling Std.	JAS Standard
Name of the Standard	Carbonated Soft Drinks	Carbonated Soft Drinks
Scope	Quality labeling for carbonated soft drinks	Standard for carbonated soft drinks
Description	Water-based flavored drinks with added carbon dioxide, sweetener, acidulant and others	Water-based flavored drinks with added carbon dioxide, sweetener, acidulant and others
Essential Composition and Quality Factor		<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
Food Additives		<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
Contaminant		
Hygiene		Specification on Gas volume
Weights and Measures		Must meet designated volume appeared on the label
Labelling	Specific labelling methods	JAS mark
Methods of Analysis	This Table does not contain details of standards regulated for all foodstuffs	

Case Study 3 : Prepared Frozen Foods

JAPAN		JAS Quality Labelling Standard Prepared Frozen Foods		
Name of the Standard		Frozen fried foods	Frozen fried Fishes Frozen fried Shrimps Frozen fried Squids Frozen fried Oysters Frozen Croquettes Frozen <i>Katuretu</i> (fried meat)	Product names are defined by main material content , limitation of alternative material , etc.
Scope	→	Frozen <i>Shaomai</i> , Frozen <i>Gyoza</i> , Frozen <i>Harumaki</i> (spring rolls)		
Description		Frozen Hamburger steaks, Frozen Meatballs, Frozen Fish hamburgers, Frozen Fishballs		
Essential Composition and Quality Factor		Frozen Steamed Rice, Frozen Noodles		
Food Additives		Standard for Foodstuff (Food Sanitation Act) Frozen Foods		
Contaminant				
Hygiene	→	Standard for Components (to be consumed)	Bacterial count	Coliform group
Weights and Measures		without heating	100,000/g>	Test negative
Labelling		after heating (heated before freezing)	100,000/g>	Test negative
Methods of Analysis and Sampling		After heating (other than 2 above)	3,000,000/g>	Test negative
		Storage Standard	must be below -15°C	

Example within Codex
Food Category System : 09.2.2: Frozen battered fish, fish fillets and fish products, including molluscs, crustaceans, and echinoderms
Codex Stan: 166-1989 Quick frozen fish sticks(fish fingers),fish portions and fish fillets-breaded or in batter

平成22年度

東アジア食品産業海外展開支援事業 「東アジアの食品等の規格基準、 分析方法の調査と結果の共有化」

- 調査国の拡大
- 調査食品の拡大
- データベースの開発
- 調査プロジェクトチームへの参加募集

International Workshop
on Food Commodity Standard in Asia

Regulatory Framework on Foods

: Cases of Food Commodity Standards in Korea

Myeong-Ae Yu, Ph.D
ILSI Korea

March 29, 2010

1



International Life Sciences Institute (ILSI)

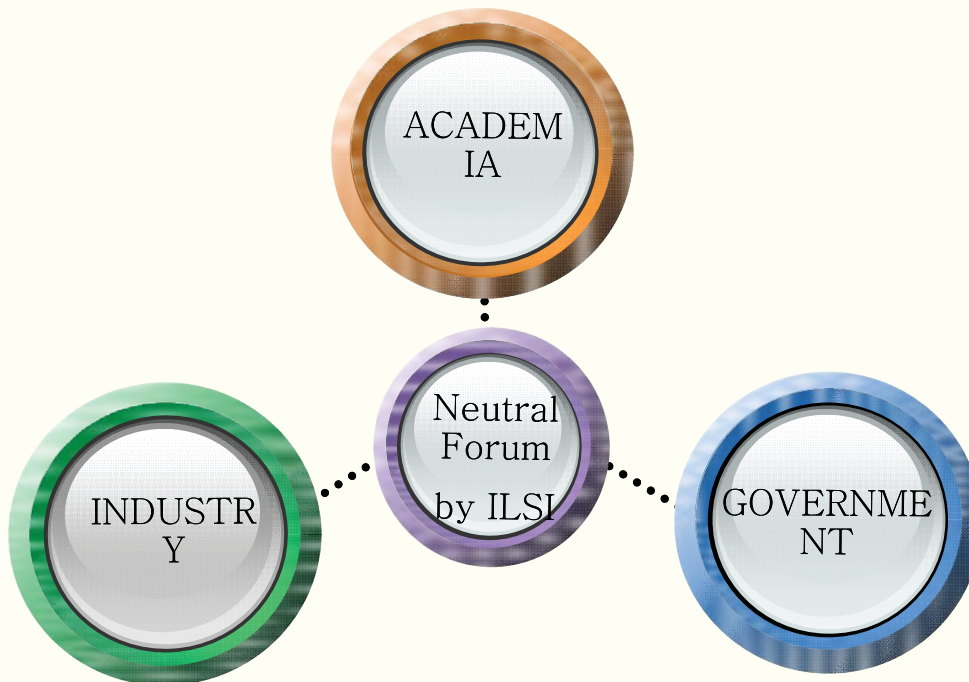
Mission

To improve the health & well-being of
the general public and environmental Safety through
advancement of science





ILSI's Function



한국국제생명과학회

ILSI Korea

- Established in 1995
- Non-profit, Scientific Institute
- Headquarter in Seoul, Korea
- Funds Supported by Membership and Donation

(22 Members, March 2010)

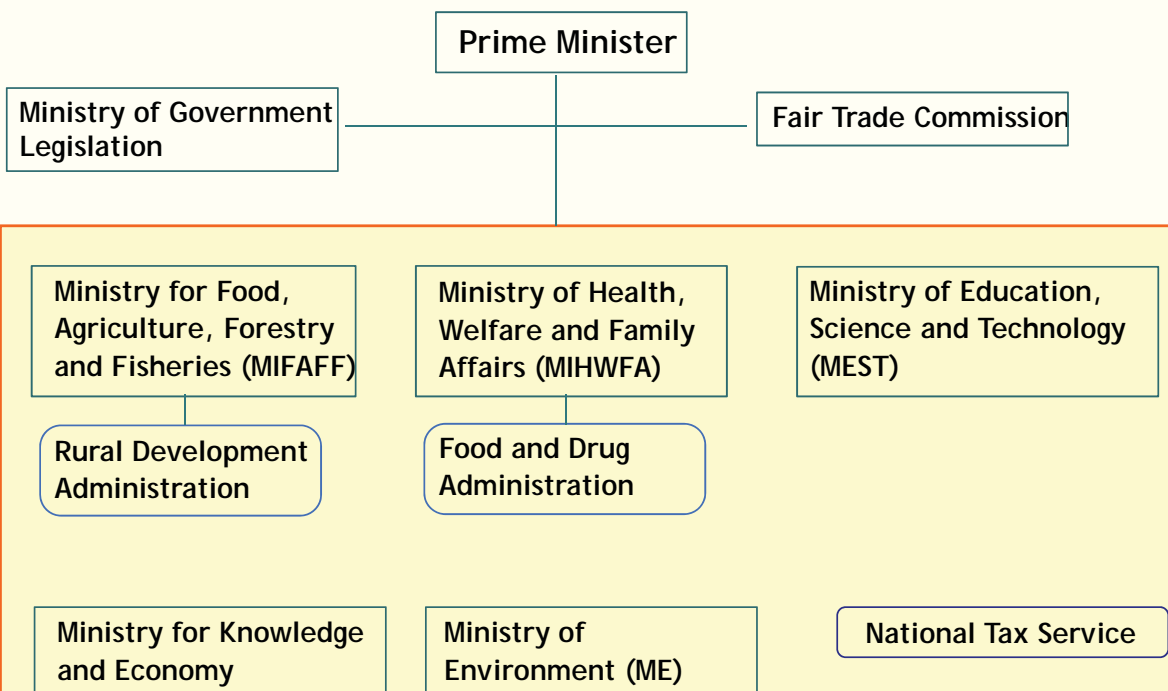


Regulatory Framework on Food in Korea

5



Government Agencies Having Authority on Food in Korea



6



Food Management System in Korea

Section	Farming etc	Import	Domestic
Agricultural Products	MIFAFF		KFDA
Aquatic Products	MIFAFF		KFDA
Stock Farm Products	MIFAFF		MIFAFF KFDA (Standard for Residual Harmful Substance)
Drinking Water	Ministry of Environment		
Alcoholic Beverages	National Tax Service KFDA (Standard for Residual Harmful Substance)		
School Feeding	MEST/Office of Education KFDA (Safety Management for Group Feeding Facilities except for School Feeding Facilities)		

*KFDA: Korea Food & Drug Administration

*MIFAFF: Ministry for Food, Agriculture, Forestry and Fisheries

*MEST: Ministry of Education, Science and Technology



Food Regulations & Standards in Korea

- Food Sanitation Act
- Health Functional Food Act
- Quality Assurance of Agricultural Produces Act
- Pesticide Management Act
- Meat Processing Act
- Health Promotion Act
- Monopoly Regulation & Fair Trade Act
- Fair labeling and Advertising Act
- Drinking Water Management Act
- Food Code
- Food Additives Code
- Quality Labeling Standards
- KS Standard

ILSI Japan/MAFF Project on

Investigation of Food Commodity Standards and Analytical Methods in Asia

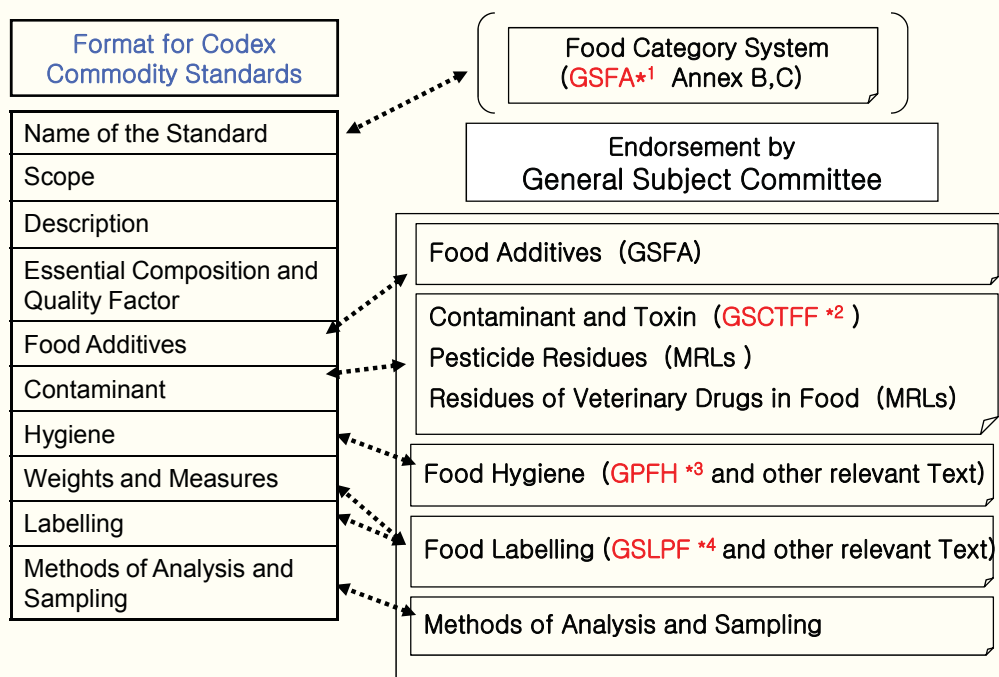
Case Studies in Korea

9



Elaboration of Codex Commodity Standards

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



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

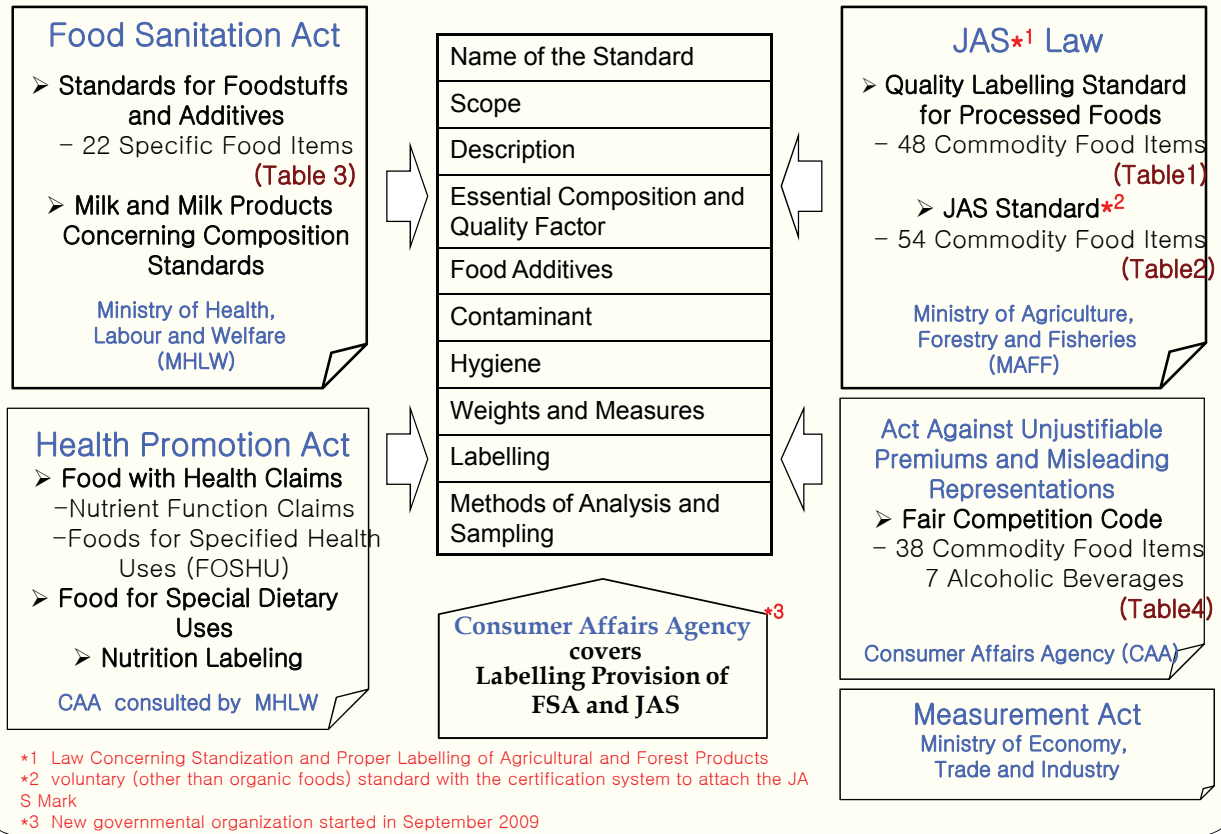
*2 Codex Stan 193-1995 General Standard for Contaminants and Toxins in Foods and Feeds

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

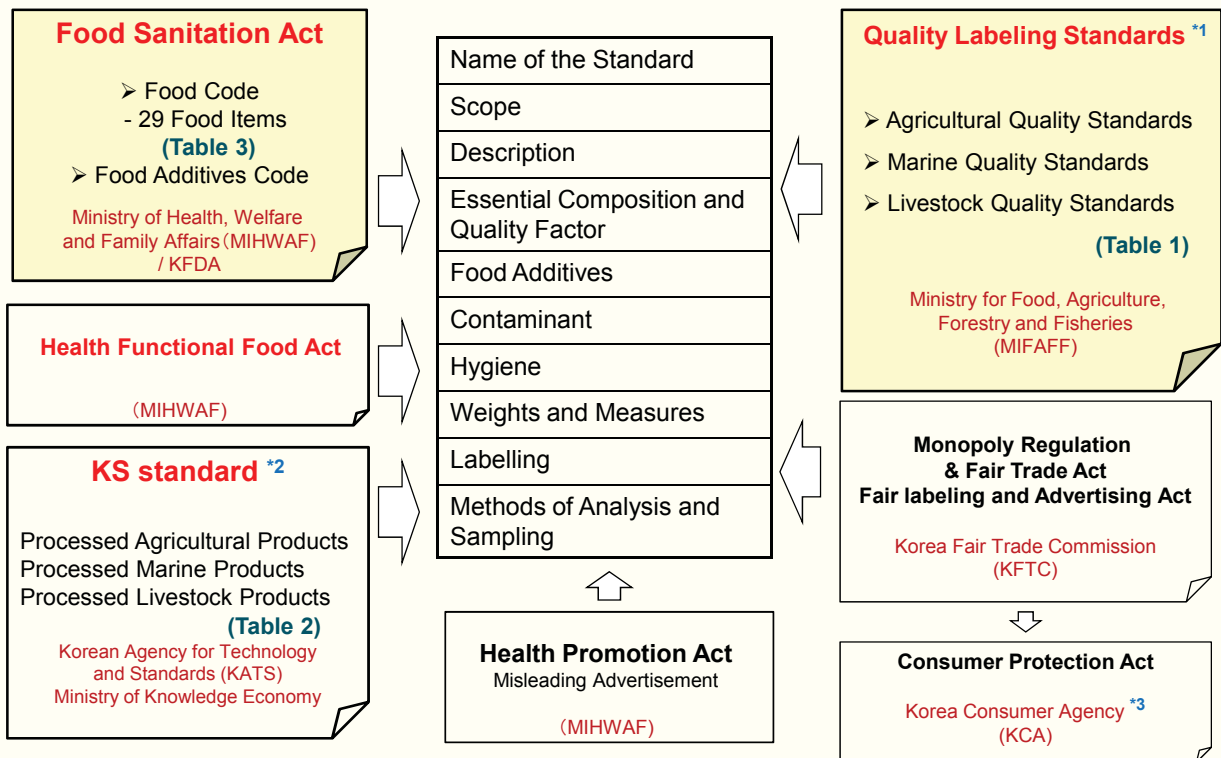
*4 Codex Stan 1-1985 General Standards for the Labelling of Prepackaged Foods



Format Provided: Japanese Commodity Standards



Korean Commodity Standards



*1 Law concerning Standardization and Proper Labeling of Agricultural, Marine and Livestock Products
 *2 Standard with the certification system to attach the KS Mark
 *3 KCA is under the authority of KFTC



Table 1. Quality/Labeling Standards

3 Major Quality Standards under the MIFAFF (mandatory for all foods)

1. Agricultural Quality Standards :

Agricultural/Forestry/Livestock products except the processed products

(Those for the Processed products - Food Sanitation Act)

2. Marine Quality Standards :

All marine products including processed foods

(Except live marine animals/plants imported from other countries

- Disease Control Law of Marine Animals)

3. Livestock Quality Standards :

Meat, Milk, Eggs and their processed products.



Table 1. Quality/Labeling Standards (Cont'd)

Labeling and Safety Systems under MIFAFF

Specific labeling system :

GAP (Good Agricultural Practices, 105 food items), Organic Processed Food Certification, GMO



GAP



Organic processed food certification



유기가공 식품인증



GMO

Safety systems :

HACCP, Traceability System (Agricultural/Livestock/Marine Products), LIVESTOCK PRODUCT SAFETY MANAGEMENT SYSTEM(LPSMS), SafeQ



Agricultural Products Traceability



Marine Products Traceability



LPSMS



SafeQ



Table 2. Product List of KS Standard

1. Processed Agricultural Products (99 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 (Case Study 1)
28	Cottonseed oil	61	Palm Olein Oil	94	Fresh noodles (Case Study 1)
29	Sesame oil	62	Palm Stearin Oil	95	Precooked noodles (Case Study 1)
30	Chunjang	63	Palm Kernel Oil	96	Fried noodles (Case Study 1)
31	Mayonnaise	64	Kimchi	97	Seasoned and boiled agricultural products - Jorim
32	Pan bread	65	Coconut oil	98	Frozen dumpling (Case Study 3)
33	Starch syrup	66	Dried Soup	99	Frozen croquette (Case Study 3)

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* KS Standards : Korean Industrial Standards



Table 2. Product List of KS Standard Cont'd.

2. Processed Livestock Products (35 Products)

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

3. Processed Marine Products (29 Products)

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

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Table 2. Product List of KS Standard Cont'd.

4. Others (10 Products)

1	Soluble saccharin
2	Carbonated soft drinks (Case study 2)
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

* KS indicates Korean Industrial Standards.

KS certification scheme for product is the system of certifying that a certain product regulated in the relevant standards has passed product test, factory inspection and audit according to the criteria of relevant KS based on the Article 15 of Industrial Standardization Act, allowing it to indicate KS-mark on their product, packaging, container, statement of delivery, warranty and/or promotional materials.



Table 3. Food Items in Food Code

Specifications for Long Shelf-life Foods (Article No. 3)

1	Canned & Bottled Food
2	Retort Food
3	Frozen food (case study 3)

Standards & Specifications for Each Food Product (Article No. 5)

1	Confectionaries	16	Teas
2	Breads or Rice Cakes	17	Coffees
3	Cocoa Products or Chocolates	18	Beverages (case study 2)
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 (case study 1)		

* Food Code : Under the Food Sanitation Act.

* Details of food additives are available in English at <http://fa.kfda.go.kr/foodadditivescode.html>

Food Commodity Standards : Case Studies

Noodle/Instant Noodle

Carbonated Soft Drinks

Frozen Foods

Food Additives for Beverages & Meat

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Case Study 1 : Noodle/Instant Noodle

Item	Food Sanitation Act	KS standard
Name of the Standard	Noodles	Instant Noodles *1
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

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Case Study1:Noodle/Instant Noodle (con

t' d)

Standard Item	Food Sanitation Act	KS standard
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) <i>E. coli</i> : Negative (Limited to alcohol-treated products) 3) Coliform group : Negative (Limited to pasteurized products)	* Containers/Packing condition * Microbiological Criteria: <i>E. coli</i> : Negative Coliform group : Negative The number of Bacteria : 1,000 (only for precooked noodle)
Labeling	Specific Labeling Methods required (Nutrition Facts/ Pasteurized vs. Non-pasteurized / Fried, Alcohol-treated etc.)	Labeling Standards follow "General Standard of Labeling for Processed Foods" (KS H 1101) Labeling should meet the requirement of Food Sanitation Act.



Case Study1:Noodle/Instant Noodle (con

t' d)

Standard Item	Food Sanitation Act	KS standard
Methods of Analysis and Sampling	Determination of Acid/Peroxide Value, Tar, Preservatives, Bacteria, <i>E.coli</i> , 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.

*1KS standard about the Instant noodles was eliminated on December 28, 2009.

It was explained that Instant noodles were subdivided into fresh noodles, pre-cooked noodles, fried noodles and dried noodles.

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



Case Study 2: Carbonated Soft Drink

	Food Sanitation Act ^S	KS standard
Name of the Standard	Carbonated Beverages	Carbonated Soft Drinks (KS H 2016)
Scope	Carbonated Beverages Carbonated Water	Carbonated Beverages Carbonated Water
Description	Carbonated beverages refer to products for drinking with carbonic acid gas	Carbonated beverages refer to products for drinking with carbonic acid gas
Essential Composition and Quality Factor	Pressure of carbonic acid gas (kg/cm ²) ① Carbonated water: Not less than 1.0 ② Carbonated beverage: Not less than 0.5 Lead (mg/kg) : Not more than 0.3 Cadmium (mg/kg) : Not more than 0.1 Tin (mg/kg): Not more than 150 (Limited to canned products)	Must have satisfactory color and flavor Must not have off-taste and off-odor Pressure of carbonic acid gas (kg/cm ²) ① Carbonated water : Not less than 2.5 ② Carbonated beverage : Not less than 2.0 Lead (mg/kg): Not more than 0.3 Cadmium (mg/kg): Not more than 0.1 Tin (mg/kg): Not more than 150 (Limited to canned products) Packaging standards : The container shall not be swollen, deformed or rust, requiring complete sealing and appropriate degree of vacuum .

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Case 2: Carbonated Soft Drinks (Cont'

	Food Sanitation Act ^{d)}	KS standard
Food Additives	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)	
Hygiene	The number of Bacteria : Not more than 100 Coliform group : Negative	The number of Bacteria : Not more than 100 Coliform group : Negative
Labeling	Specific labeling methods 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.	Labeling Standards follow "General Standard of Labeling for Processed Foods" (KS H 1101)
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.

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



Case Study 3 : Frozen Foods

	Food Sanitation Act	KS standard
Name of Food Item	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. (1) Frozen food not requiring heating process before consumption : Frozen food that can be consumed without a separate heating process. (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 (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. (2) Thawing of refrigerated raw material shall be hygienically performed.</p> <p>3. Preservation and Distribution Standards (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. (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. (3) Chilled food shall not be also distributed at room temperature (except fruit/vegetable). (4) Thawed food shall not be again frozen. (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.

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Case Study 3 : Frozen Foods (cont' d)

	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 breaded shrimp	Frozen pork cutlet	Frozen fish cutlet
			Heated food before freezing	Not-heated food before freezing						
	Bacteria Counts (CFU/g)	No more than 100,000 (except fermented products or those added with lactic acid bacteria (LAB))	No more than 100,000 (except fermented products or those added with LAB)	No more than 3,000,000 (except fermented products or those added with LAB)	Bacteria Counts (CFU/g)	No more than 1,000	—	—	No more than 3x10 ⁶ (but heated /noheated food before freezing <100,000)	No more than 100,000
Coliform Group (CFU/g)	No more than 10	No more than 10	—	Coliform Group (CFU/g)	No more than 10	—	—	No more than 10 (only for heated food before freezing)	Negative (only for heated food before freezing)	

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Case Study 3 : Frozen Foods (cont' d)

	Food Sanitation Act				KS standard					
Hygiene	<i>E. coli</i>	—	—	Negative	<i>E. coli</i>	—	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)				—	Negative	—	—	
Labeling	<p><i>Frozen food shall be labeled according to the following criteria :</i></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>				Labeling Standards follow "General Standard of Labeling for Processed Foods" (KS H 1101)					
Methods of Analysis and Sampling	Determination of Bacteria counts, <i>E. coli</i> , Coliform group, Lactic acid bacteria.				Sensory and Physical Examination (KS A 7002) Determination of Water Content (KS H 1201) Determination of Coliform group (KS H ISO 4832) Determination of Micro-organism (KS H ISO 4833) Anything not specified is handled in accordance with the Food Sanitation Act.					

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

Food Additives : Classification in Korea

Synthetic Additives	432 items
Natural Additives	206 items
Mixture Additives	7 items
* Coloring/Flavoring agents 1834 items	

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Case Study 4 : Food Additives for Beverages & Meat products

1. Standards for use in Korea: Beverage

Major Use Category	Additives	Target Foods	Maximum Limits	Limitation for use
Antioxidants	Calcium Disodium Ethylenediaminetetraacetate	Canned or bottled beverage	35mg/kg	when it is used along with EDTA potassium disodium, total should not more than 35mg/kg
	Disodium Ethylenediaminetetraacetate	Canned or bottled beverage	35mg/kg	when it is used along with EDTA potassium disodium, total should not more than 35mg/kg
Bleaching agents	Potassium Hydrogen Sulfite solution	No data		
	Potassium Pyrosulfite			
	Sodium Hydrogen Sulfite Solution			
	Sodium Hydrogen Sulfite			
	Sodium Pyrosulfite			
Sodium Sulfite		Fruit wine	350mg/kg	
		Fruit juice that is five times diluted prior to use, concentrated fruit juice, and processed fruits and vegetables	150mg/kg	

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Case Study 4: Food Additives for Beverages

(Cont' d)

Major Use Category	Additives	Target Foods	Maximum Limits	Limitation for use
Bleaching agents	Sulfur Dioxide	Fruit wine	350mg/kg	
		Fruit juice that is five times diluted prior to use, concentrated fruit juice, and processed fruits and vegetable	150mg/kg	
Emulsifiers	Polysorbate 20	No data		
	Polysorbate 60			
	Polysorbate 65			
	Polysorbate 80			
Non-nutritive sweeteners	Acesulfame Potassium	Beverages, processed milk, fermented milk, coffee mix	500mg/kg	if it is to be diluted for drinking, the usage in diluted form.
	Sodium Saccharin	Beverages (except for fermented dairy-based drinks)	200mg/kg	if it is consumed after diluting by a factor of >5, not more than 1.0 g/kg.
	Sucralose	Beverages, processed milk, fermented milk, coffee mix	400mg/kg	if it is to be diluted for drinking, the usage in diluted form
Preservatives	Benzoic acid	Fruit vegetable beverages (non-heat-treated products are excluded), carbonated beverages (carbonated water is excluded), other beverages, ginseng beverages, red ginseng beverages	600mg/kg	
	Butyl p-Hydroxybenzoate	No data		
	Potassium Sorbate	Concentrated fruit juice	1.0g/kg	
		Fermented dairy-based drinks (pasteurized beverages are excluded)	50mg/kg	
		Fruit Liquor	200mg/kg	
Sodium Benzoate	Fruit vegetable beverages (non-heat-treated products are excluded), Carbonated beverages (carbonated water is excluded), other beverages, ginseng beverages, red ginseng beverages & soy sauce	600mg/kg		

30



Case Study 4 : Food Additives for Beverages & Meat products

2. Standards for use in Korea : Meat Products

Major use category	Additives	Target foods	Maximum Limits	Limitation for use
Preservatives	Nisin	No data		Only used for processed cheese
	Potassium Sorbate	Meat products	2.0g/kg	
	Sorbic acid	Meat products	2.0g/kg	



Summary

- Food management system in Korea is complicated and involves multilateral government agencies.
- Food commodity standards involve several food regulation including Food Sanitation Act, Health Functional Food Act, Monopoly Regulation & Fair Trade Act, Fair Labeling and Advertisement Act, Consumer Protection Act, Health Promotion Act, Quality Labeling Standards and KS Standards.
- Case studies for the ILSI collaborated project are noodles/instant noodles, carbonated beverages, frozen foods, and food additives (beverages and meat products)



Thank you

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Food Regulatory Framework & Commodity Food Standards in China

Li, Yu PhD

Director, **Scientific & Regulatory Affairs**, Mars Inc (China)

Chairman, **S&RA** Committee, China National Food Industry Association

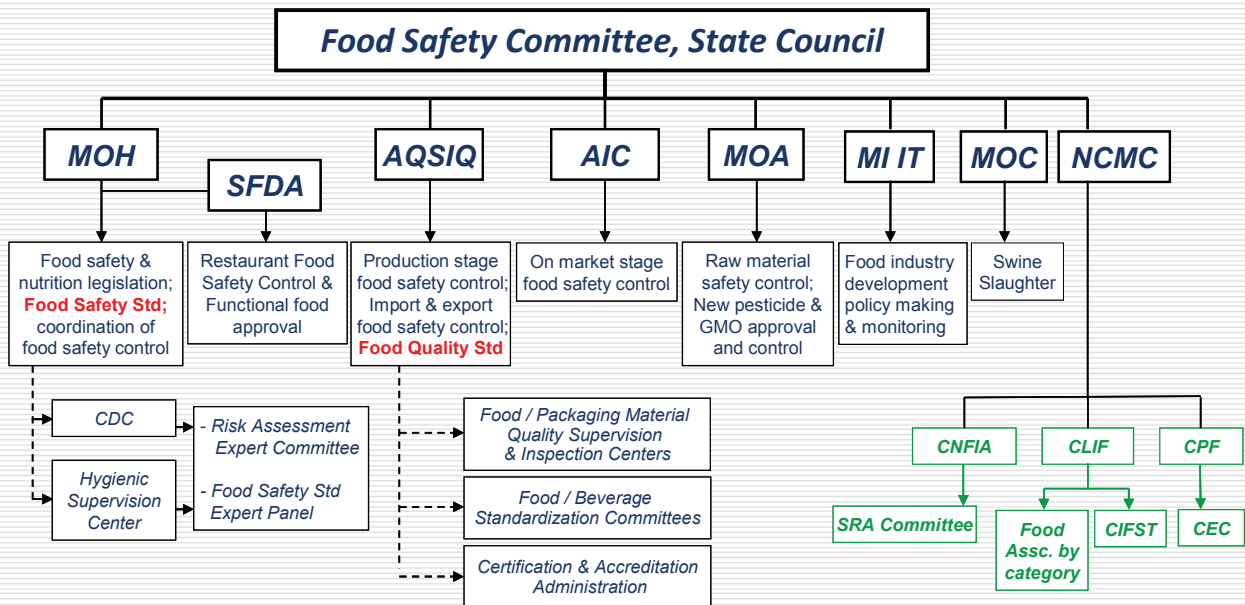
ILSI Focal Point in China

29 Mar 2010 **TOKYO**

Evolution of Food legislation in China

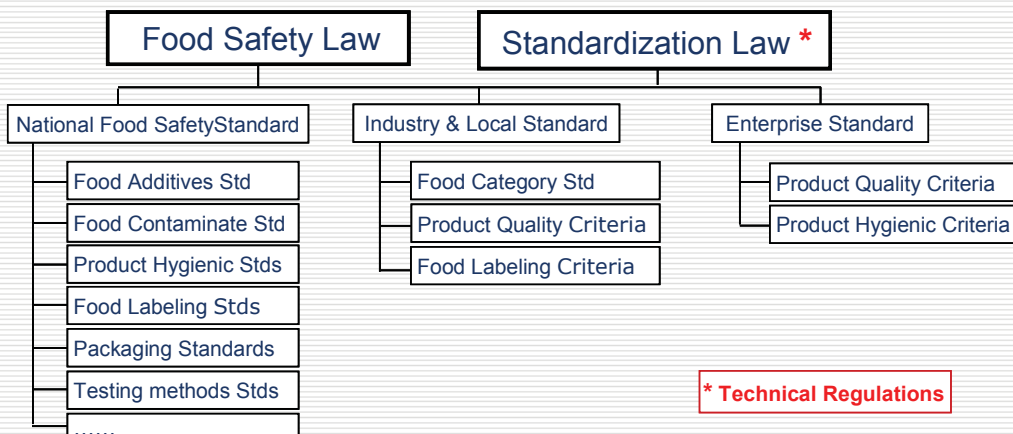
- Food safety control system set up since 1950's
- Food Hygiene Regulation (Provisional ,1964)
- Food Hygiene Law (Provisional) (1982)
- Food Hygiene Law (1995)
- Food Safety Law (Feb 2009)

Government Organization



This government structure is based on the new Food Safety Law.

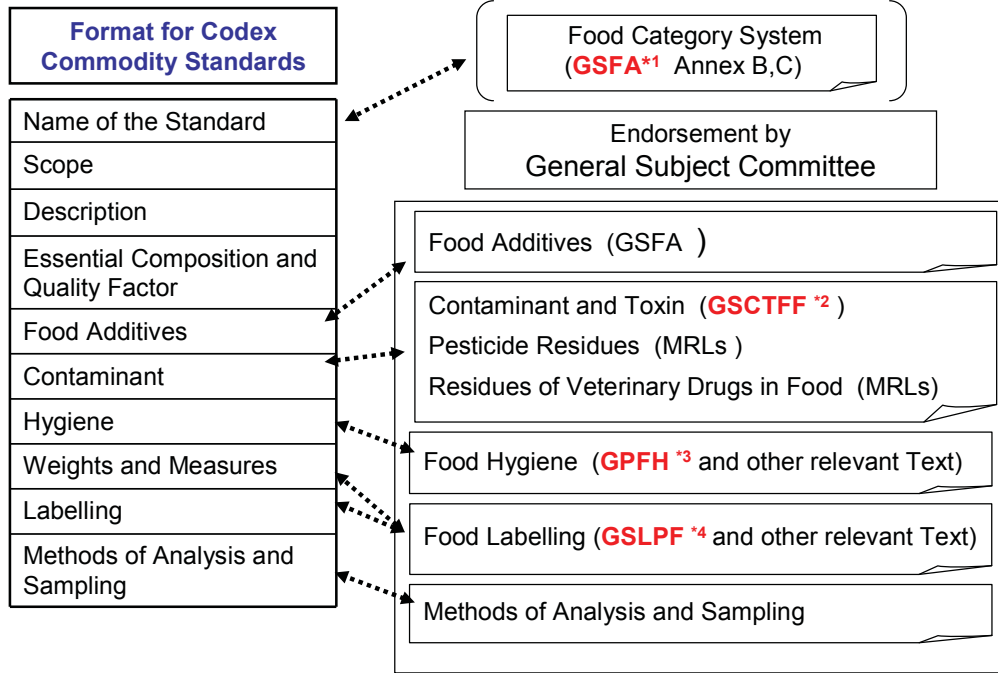
Food Laws, Regulations, Standards



*** Technical Regulations**

Elaboration of Codex Commodity Standards

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



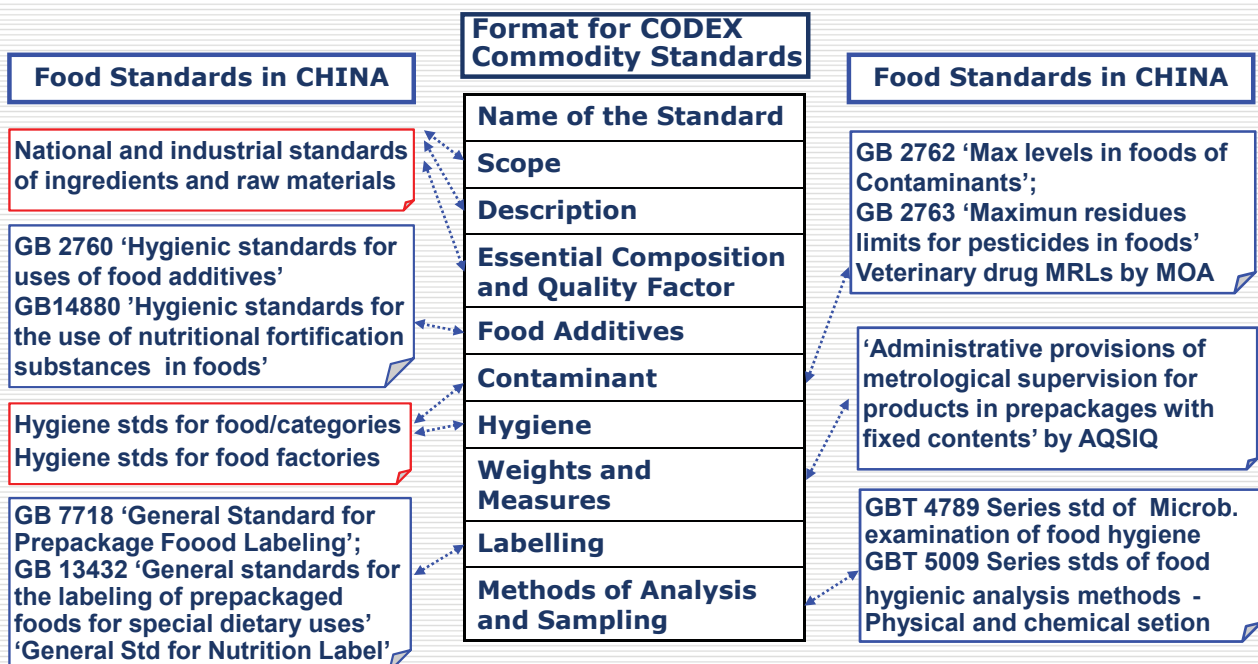
*1 Codex Stan 192-1955 General Standard for Food Additives

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

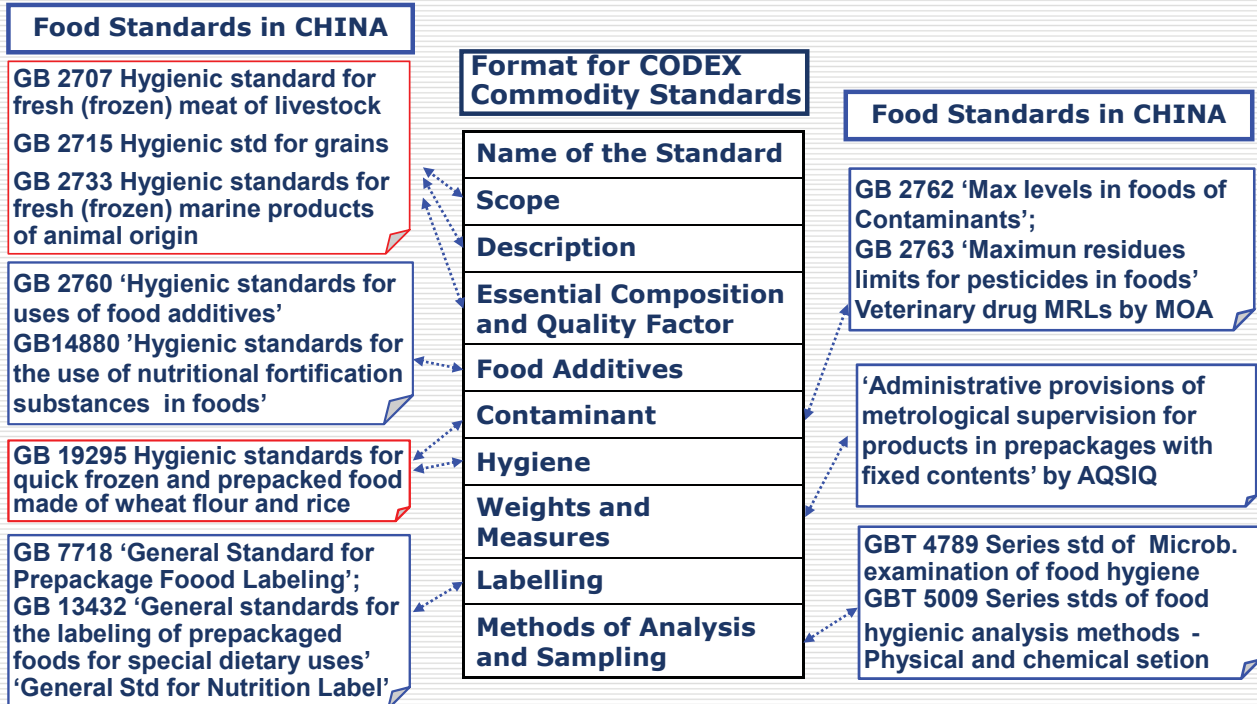
*3 CAC/RCP1-1969 General Principles of Food Hygiene

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

General Situation of Food Stds



Case Study 1: Frozen Foods Stds (1)



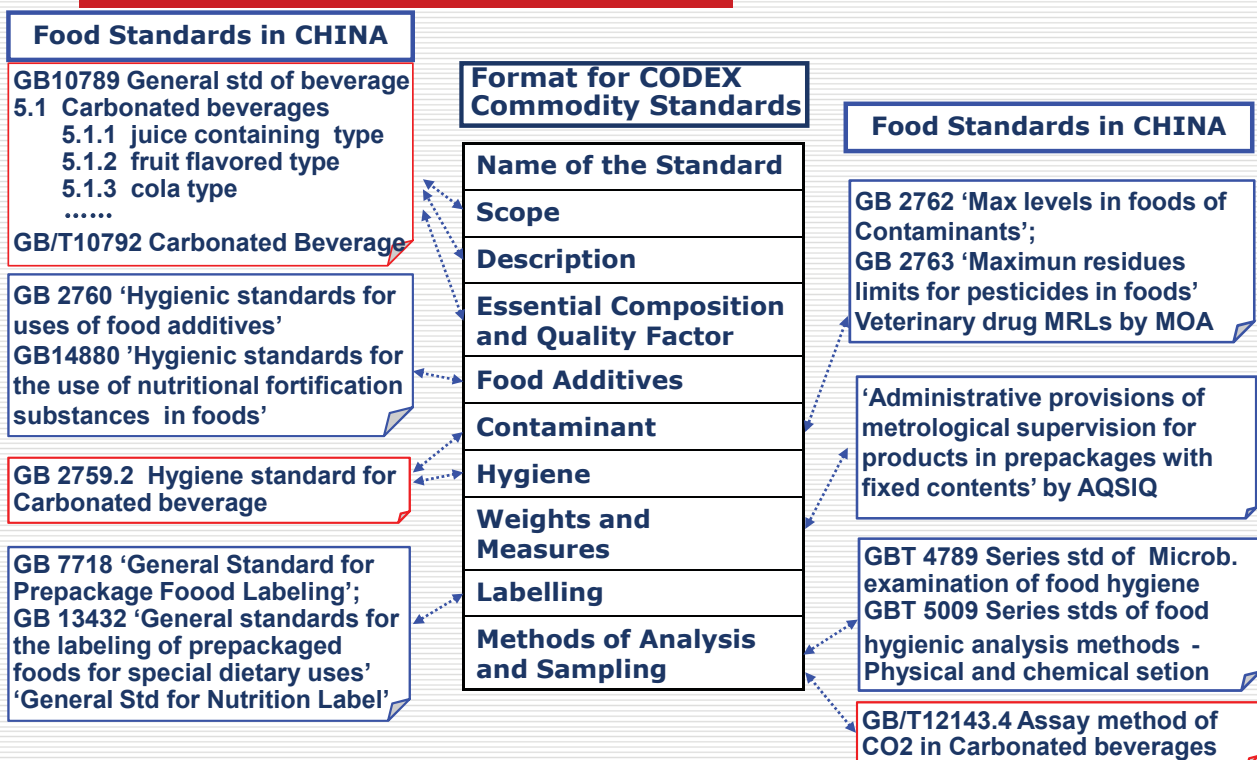
Case Study 1: Frozen Foods Stds (2)

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

Case Study 1: Frozen Foods Stds (3)

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

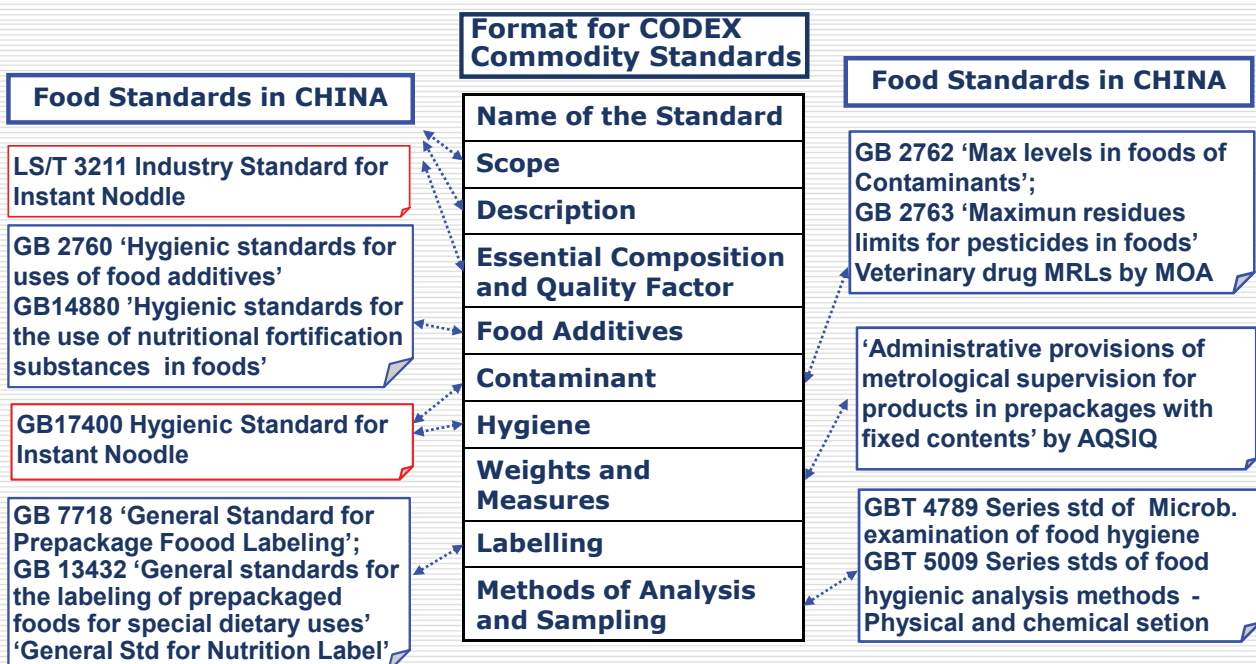
Case Study 2: CO₂ Beverage Stds (1)



Case Study 2: CO₂ Beverage Stds (2)

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"> Reductor method; 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

Case Study 3: Instant Noodle Stds (1)



Case Study 3: Instant Noodle Stds (2)

	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 requiremt	* 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 snape 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	≤	Fried	Non-fried	≤	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	≤ 3% of declared weight		

Case Study 3: Instant Noodle Stds (3)

	Hygienic Standard for Instant Noodle			Industry Standard for Instant Noodle		
Microbe	≤	Fried	Non-fried	≤	Fried	Non-fried
	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 'Hygien standard of food additive use'.			Food additives should meet national and industrial standards.		
Packaging	Packaging vessel and material shpould meet relevany hygiene std and regulation			Should meet 'Hygiene standard of food pakaging 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		

Case Study 4: Use of Food Additive (1)

GB 2760 Standard for Food Additives Use

- ❑ **Similar to CODEX Food Additives Standard**
- ❑ **Allowable food additives, applicable foods categories and maximum level**
 - Table A.1 In alphabetic order of food additives
 - Table A.2 In alphabetic order of food categories
 - Table A.3 Additives allowed to be used in level required by process of any foods.
 - Table A.4 Food categories excluded form Table A.3
- ❑ **List of food flavors**
 - Table B.1 Natural flavor
 - Table B.2 Natural flavor equivalent
 - Table B.3 Synthetic flavor
- ❑ **Food processing aid**
 - Table C.1 Processing aid
 - Table C.2 Enzyme for food processing and its source
- ❑ **Table D.1 Ingredients for gum base**

Case Study 4: Use of Food Additive (2)

Example:

Table A.1: Application scope and dose levels of food additives			
Glycine			
Number of CNS: 12.007		Number of INS: 640	
Function: Flavor enhancer			
Number of food category	Food name/category	Maximum level g/kg	Note
12.0	Condiment	1.0	
14.03.02	Plant protein containing drinks	1.0	
Ammonium phosphatide			
Number of CNS: 10.033		Number of INS: 442	
Function: Emulsifier			
Number of food category	Food name/category	Maximum level g/kg	Note
05.01.02	Chocolate and product, cocoa product other than 05.01.01	10.0	
Carnauba Wax			
Number of CNS: 14.008		Number of INS: 903	
Function: Coating agent, anti-caking agent			
Number of food category	Food name/category	Maximum level g/kg	Note
05.0	Cocoa product, chocolate and product (including chocolate imitation and chocolate substitutes), and candy	0.6	

Case Study 4: Use of Food Additive (3)

Example:

表 A.3 (续)

序号	添加剂中文名称	添加剂英文名称	CNS号	INS号	功能
12	单,双,三甘油酯(油酸,亚油酸,柠檬酸,亚麻酸,棕榈酸,山萘酸,硬脂酸,月桂酸)	mono-(di-, tri-)glycerides of fatty acids	10.006	471	乳化剂
13	改性大豆磷脂	modified soybean phospholipid	10.019	—	乳化剂
14	柑桔黄	orange yellow	08.143	—	着色剂
15	甘油	glycerine	15.014	422	水分保持剂
16	高粱红	sorghum red	08.115	—	着色剂
17	谷氨酸钠	monosodium glutamate	12.001	621	增味剂
18	瓜尔胶	guar gum	20.025	412	增稠剂
19	果胶	pectins	20.006	440	增稠剂
20	海藻酸钾	potassium alginate	20.005	402	增稠剂
21	海藻酸钠	sodium alginate	20.004	401	增稠剂
22	槐豆胶(又名刺槐豆胶)	carob bean gum	20.023	410	增稠剂
23	黄原胶(又名汉生胶)	xanthan gum	20.009	415	增稠剂

Case Study 4: Use of Food Additive (4)

Example:

表 B.1 允许使用的食品用天然香料名单

编码	香料中文名称	香料英文名称(斜体为学名)	FEMA ¹⁾ 编号
N001	丁香叶油	clove leaf oil(<i>Eugenia</i> spp.)	2325
N002	丁香花蕾酊(提取物)	clove bud tincture(extract)(<i>Eugenia</i> spp.)	2322
N003	丁香花蕾油	clove bud oil(<i>Eugenia</i> spp.)	2323
N004	罗勒油	basil oil(<i>Ocimum basilicum</i> L.)	2119
N005	八角茴香油	anise star oil(<i>Illicium verum</i> Hook. f.)	2096
N006	九里香浸膏	common jasmin orange concrete(<i>Murraya paniculata</i>)	—
N007	广藿香油	patchouly oil(<i>Pogostemon cablin</i>)	2838
N008	万寿菊油	tagetes oil(<i>Tagetes</i> spp.)	3040
N009	大茴香脑	trans-anethole anise camphor	2086
N010	小豆蔻油	cardamom oil(cardamom seed oil)	2241
N011	小豆蔻酊	cardamom tincture(<i>Elletaria cardamomum</i>)	2240
N012	小茴香酊	fennel tincture(<i>Foeniculum vulgare</i> Mill.)	—
N013	山苍籽油	<i>Litsea cubeba</i> berry oil	3846
N014	山楂酊	<i>Hazorthorn</i> fruit tincture	—

Thank You



International Life Sciences Institute
SOUTHEAST ASIA REGION

ILSI Japan/MAFF Project
Investigation of Commodity Food Standards
and Analytical Methods in Asia

Malaysia, Singapore & Philippines

Pauline Chan
ILSI Southeast Asia Region



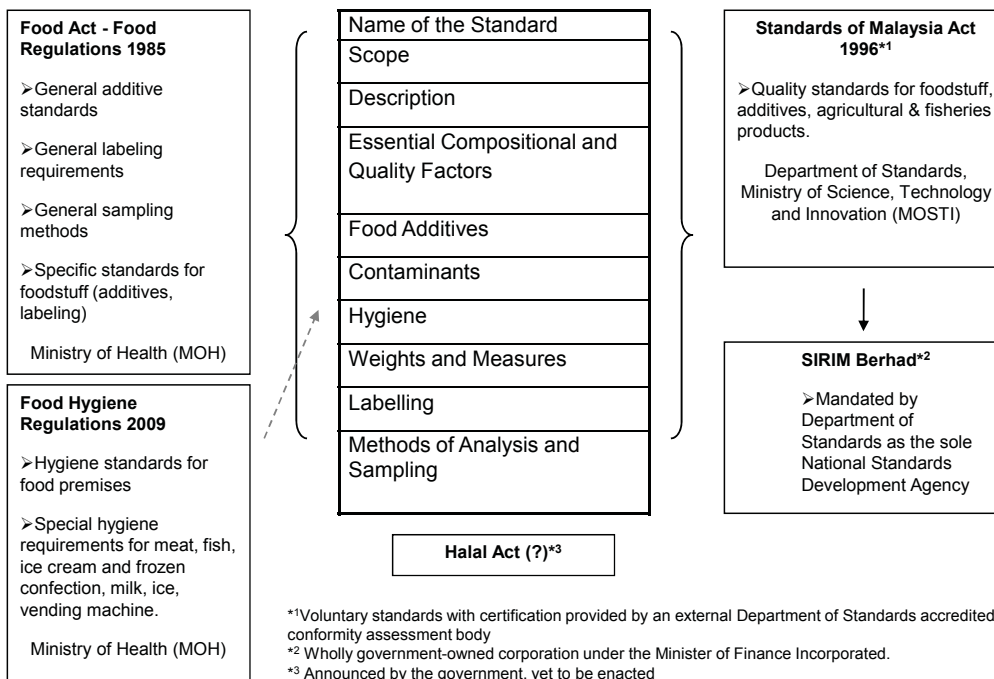
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ILSI Japan/MAFF Project
Investigation of Commodity Food
Standards and Analytical Methods
in Asia

Malaysia



Malaysian Commodity Standards



Malaysia: Food Laws

- Food Act 1983
 - General food law in Malaysia
 - Allows MOH to make further subsidiary regulations
- Food Regulation 1985
 - Compilation of subsidiary regulations that cover
 - Sampling procedure
 - Food labeling
 - Food additive and nutrient supplements
 - Food packaging
 - Contaminants
 - Technical standards for food commodities in food additive usage and labeling
- Food Hygiene Regulations
 - Hygiene requirements for handling, preparing, packaging, serving, storing of foods
- In the near future: Halal Act???
 - Impact on production, regulation and trade of food commodities



Malaysia: Food Safety Administration

- Food Safety & Quality Division (FSQD) under MOH is the main food safety authority
 - Covers processed foods, agricultural products, meat, dairy & fisheries products
- MoA is not involved in regulating food safety and standards
 - Only upstream, i.e. pesticide use
 - Animal health by DVS



Malaysia: Malaysian Standards (MS)

- Issued under the **Standard of Malaysia Act 1996** by the Department of Standards under **Ministry of Science, Technology and Innovation**
 - Voluntary quality standards known as Malaysian Standards (MS)
- Dept. of Standards has assigned SIRIM Berhad to draft MS Standards
 - Wholly government-owned privatized corporation
 - Sole National Standards Development Agency
- Agriculture: 581 standards
- Food and food products: 63 standards



Malaysia: MS Standards

- MS Standards in principle are voluntary
 - Can become mandatory if referenced by law
 - For example, Food Regulations 1985 re: labeling of organic food requires compliance to MS 1529: The production, processing, labeling and marketing of organically produced foods
- Certification provided by 3rd party CABs – mainly by SIRIM Quality Assurance Services (QAS)
 - A subsidiary of SIRIM Berhad



Case study 1: Instant Noodles

Item	Standard	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		Noodles, beehoon, laksa, macaroni and spaghetti	Fried noodles, non-fried noodles	Instant beehoon (instant rice vermicelli)
Description		Any product that is obtained by extruding or moulding units of dough.	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.	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: <ul style="list-style-type: none"> a) wheat flour and other flour or starches; b) water; and c) common salts or alkaline salts. The permitted alkaline salts are sodium, potassium, or calcium salt of carbonates, phosphates and/or hydroxides. ▪ 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) 	<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%

Case study 1: Instant Noodles

Item	Standard	Food Regulations 1985 (as at 1 st September 2009)	MS 526:2009	MS 1112:1988
Food Additives		<ol style="list-style-type: none"> 1. Permitted colouring substance 2. Transglutaminase, sulphur dioxide or sulphites (as permitted food conditioner): <200mg/kg <ul style="list-style-type: none"> ▪ 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		<ol style="list-style-type: none"> 1. Arsenic (As): <1mg/kg 2. Lead (Pb) : <2 mg/kg 3. Tin (Sn): <40 mg/kg 4. Mercury (Hg): <0.05 mg/kg 5. Cadmium (Cd): <1 mg/kg 6. Antimony (Sb): < 1mg/kg 7. 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"> ▪ Packed in suitable packaging materials which will safeguard the hygienic, nutritional, technological and organoleptic qualities of the product. ▪ 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. 	<ul style="list-style-type: none"> ▪ Processed and packed under hygienic conditions.

Case study 1: Instant Noodles

Item	Standard	Food Regulations 1985 (as at 1 st September 2009)	MS 526:2009	MS 1112:1988
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		<ol style="list-style-type: none"> 1. If labelled with the word "egg" or any word of similar meaning: >4% egg solids calculated on water-free basis <ul style="list-style-type: none"> ▪ Subject to general requirements for labelling ▪ Nutrient labelling is mandatory (regulation 18B of the Food Regulations 1985) 	<ol style="list-style-type: none"> 1. The following information shall appear clearly on each package: <ol 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. <ul style="list-style-type: none"> ▪ Shall comply with requirements specified in the Malaysian Food Act 1983 and Food Regulations 1985. 	<ol style="list-style-type: none"> 1. The following information shall appear clearly on each package: <ol 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; <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: 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

Case study 2: Carbonated Water-based Beverages

Standard Item	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	Flavoured drink	Ready-to-drink beverages including fruit drinks and flavoured drinks
Description	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.	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: 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 prepared or concentrated and preserved either by pasteurization or addition of permitted chemical preservatives. <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. <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.

Case study 2: Carbonated Water-based Beverages

Standard Item	Food Regulations 1985 (as at 1 st September 2009)	MS 601:1994
Food Additives	<ol style="list-style-type: none"> 1. May contain permitted preservative, permitted colouring substances and permitted food conditioner including: ester gum <150 mg/litre; and β-cyclodextrin <500 mg/litre 2. May contain caffeine-containing plant extract as permitted flavouring substance: < 200 mg/litre 3. Preservative: Sulphur dioxide: <140 mg/kg Benzoic acid: <350 mg/kg Sorbic acid: <350 mg/kg 4. Flavouring substance: Agaric acid: <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 <ul style="list-style-type: none"> ▪ Subject to general requirements concerning food additives. 	<ol style="list-style-type: none"> 1. 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. 2. Food colours, nutritive and non-nutritive sweeteners as per Food Regulations. 3. Mineral salts – sodium carbonate and sodium bicarbonate 4. Preservatives: Sulphuric dioxide: <140 ppm Benzoic acid: <350 ppm Sorbic acid: <350 ppm 5. Flavouring agents (if used): Caffeine: <150 ppm Quinine: 40-85 ppm Vitamin C (ascorbic acid): 10 mg/100ml
Contaminant	<ol style="list-style-type: none"> 1. Arsenic (As): <0.1mg/kg 2. Lead (Pb) : <0.2 mg/kg 3. Tin (Sn): <40 mg/kg (<250 mg/kg if packed in can) 4. Mercury (Hg): <0.05 mg/kg 5. Cadmium (Cd): <1 mg/kg 6. Antimony (Sb): < 0.15 mg/kg 	<ul style="list-style-type: none"> ▪ Metal contaminants: Copper: <1.0 ppm Arsenic: <0.02 ppm 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

Case study 2: Carbonated Water-based Beverages

Item	Standard	Food Regulations 1985 (as at 1 st September 2009)	MS 601:1994
Labelling		<ol style="list-style-type: none"> 1. Not allowed to use "beer", "lager", "champagne" or "wine" or other words suggesting that the product is an alcoholic beverage other than ginger beer, ginger ale and root beer. 2. Declare with words "flavoured syrup" or "flavoured cordial" or "flavoured drink", or the name of such flavour, for respective flavoured syrup or flavoured cordial or flavoured drink. 3. The label on the package of a flavoured syrup or flavoured drink shall not include – (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 4. Declare presence of caffeine in beverage, if present. 5. Declare with words "flavour" or "flavoured", if permitted fruit flavouring substance is added. 6. 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. 7. 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". <ul style="list-style-type: none"> • Subject to general requirements for labelling • Nutrient labelling is mandatory (regulation 18B of the Food Regulations 1985) 	<ol style="list-style-type: none"> 1. Each container shall be suitably labelled with the following information: 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; <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"> • 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

Case study 3: Frozen Prepared Foods

Item	Standard	MS 1125:2003	MS 1126:2003
Name of the Standard		Meat Frankfurters	Meat Burgers
Scope		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	Chilled and frozen meat burgers made from comminuted meat (beef, lamb and mutton, poultry, pork).
Description		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.	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.

Case study 3: Frozen Prepared Foods

Standard Item	MS 1125:2003	MS 1126:2003
Essential Composition and Quality Factor	<ul style="list-style-type: none"> • All meat including mechanically deboned meat used shall be obtained from healthy animals slaughtered in a hygienically-managed slaughterhouse and poultry processing plant. • Trimmings 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 glands, lymphatic glands, testicles, uterus, ovaries, cartilage and bony tissue shall not be used. • 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 palatable, have a pleasant flavour, an attractive appearance with no visible damage, objectionable colour and odour. • 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 >65% by weight of meat. • May contain meat by-products which include hearts, tongues, diaphragm meat and wesands 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 	<ul style="list-style-type: none"> • All meat including mechanically deboned meat used shall be obtained from healthy animals slaughtered in a hygienically-managed slaughterhouse and poultry processing plant. • Trimmings 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 glands, lymphatic glands, testicles, uterus, ovaries, cartilage and bony tissue shall not be used. • 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 flavour, an attractive appearance with no visible damage, objectionable colour and odour. • 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 >65% by weight of meat. • May contain meat by-products which include hearts, tongues, diaphragm meat and wesands 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. 15% by wet weight

Case study 3: Frozen Prepared Foods

Standard Item	MS 1125:2003	MS 1126:2003
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"> • In accordance with Malaysian Food Act 1983 and Food Regulations 1985.
Contaminant	<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"> • 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 at or 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 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. • Mesophilic aerobic plate count (at 37°C for 48h): <10⁴ (cooked), <10⁵ (raw) per gram • Coliform count (at 37°C for 48h): <50 per gram • <i>E. coli</i>: negative • <i>Salmonellae</i>: negative • <i>S. aureus</i>: negative • <i>Clostridia</i>: negative 	<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 at or 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 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. • Mesophilic aerobic plate count (at 37°C for 48h): <2.5 x 10⁵ per gram • Coliform count (at 37°C for 48h): <100 per gram • <i>E. coli</i>: negative • <i>Salmonellae</i>: negative • <i>S. aureus</i>: <100 per gram

Case study 3: Frozen Foods

Standard Item	MS 1125:2003	MS 1126:2003
Weight and Measures	• Not specified	• Not specified
Labelling	<p>1. Each package shall be suitably labelled with the following:</p> <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 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; h) country of origin. <p>• Shall comply with requirements specified in the Malaysian Food Act 1983 and Food Regulations 1985.</p>	<p>1. Each package shall be suitably labelled with the following:</p> <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 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; h) country of origin. <p>• Shall comply with requirements specified in the Malaysian Food Act 1983 and Food Regulations 1985.</p>
Methods of Analysis and Sampling	<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)

Case study 4: Food Additives

- General guidelines for usage of food additives in the Food Regulations 1985 & Schedules

- Food additives are classified into seven main categories under the Regulations:

- Preservative;
- Antimicrobial agent;
- Colouring substance;
- Flavouring substance;
- Flavour enhancer;
- Antioxidant; and
- Food conditioner

Case study 4: Food Additives

- Under the main category of 'food conditioner', there are a further ten sub-categories:
 - Emulsifiers;
 - Anti-foaming agents;
 - Stabilizers;
 - Thickeners;
 - Modified starches;
 - Gelling agents;
 - Acidity regulators;
 - Enzymes;
 - Solvents; and
 - Anti-caking agents

- Specific requirements for food additives are also found in standards for particular food commodities described within the Regulations

- Food additives in foods intended for consumption by infants and young children regulated separately within the Regulations

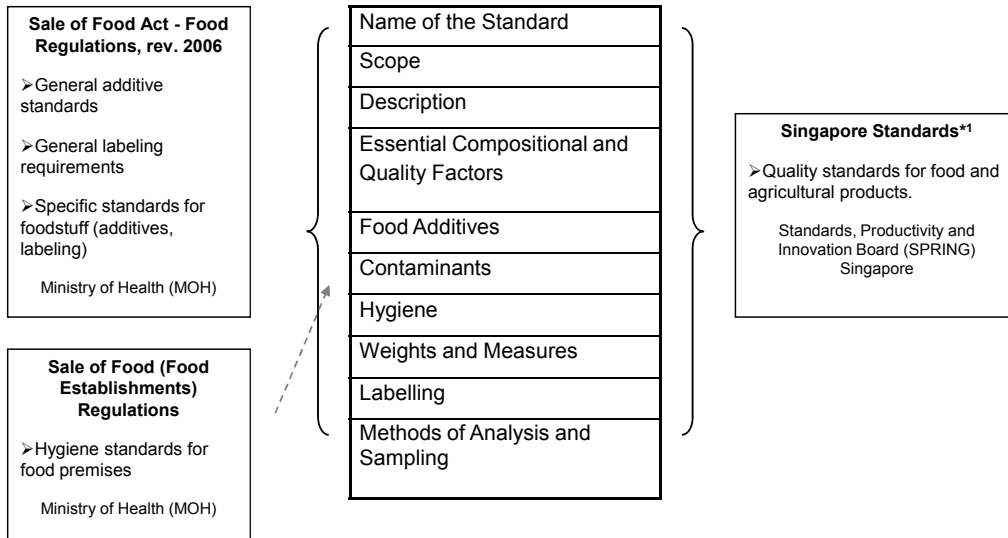
- Nutritive and non-nutritive sweetening substances are covered as particular food categories (sub-regulation 132A, 133 and 134) and not included as part of the general guidelines for food additives

ILSI Japan/MAFF Project
Investigation of Commodity Food
Standards and Analytical Methods
in Asia

Singapore



Singaporean Commodity Standards



*1 Voluntary standards with certification provided by an external SPRING Singapore accredited conformity assessment body



Singapore: Food Laws

- Sale of Food Act 2002
 - Allows relevant authority to administer Food Act and to formulate subsidiary regulations
 - Under direction and jurisdiction of Minister of Health
- Food Regulations
 - Provided for within the Act
 - Cover general requirements for food labeling, food additives, food packaging, contaminants, food irradiation, technical standards
- Sale of Food (Food Establishment) Regulations
 - Hygiene requirements for food handlers and food establishments



International Life Sciences Institute
SOUTHEAST ASIA REGION

Singapore: Food Safety Administration

- **Agri-food and Veterinary Authority (AVA)** is the sole agency for food safety
- Covers all processed foods, agricultural products, meat, dairy & fisheries products



International Life Sciences Institute
SOUTHEAST ASIA REGION

Singapore: Singapore Standards (SS)

- Voluntary standards known as Singapore Standards are issued by **SPRING Singapore**
 - Under Ministry of Trade and Industry
 - Voluntary in nature, but may become mandatory if “used by government bodies in regulations or administrative requirements for safety, environmental and health issues”
- Agricultural products: none
- Food and food products: 70 standards
- Certification by 3rd party CABs accredited by Singapore Accreditation Council (SAC) managed by SPRING Singapore

Case study 1: Instant Noodle Standards

Standard Item	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	Any product which is prepared by drying of extruded or moulded units of dough or by steaming of slitted dough with or without drying.	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	<ol 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 	<ol 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 during processing): max. 0.8% 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

Case study 1: Instant Noodles

Standard Item	Food Regulations (as at 1 st September 2006)	SS 219:1979
Food Additives	<ol style="list-style-type: none"> Permitted flavouring agents Permitted colouring matters <ul style="list-style-type: none"> Subject to general requirements for food additives. 	<ul style="list-style-type: none"> Not specified
Contaminant	<ol 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	<ol style="list-style-type: none"> If labelled with the word "egg" or any word of similar meaning: >4% egg solids calculated on dry basis <ul style="list-style-type: none"> Subject to general requirements for labelling. Nutrient labelling is necessary if a nutrition claim is made (regulation 8A of the Food Regulations) 	<ol style="list-style-type: none"> The packet shall be legibly marked as follows: <ol style="list-style-type: none"> Name and type of the product Name and address of the manufacturer and/or his registered trade mark Batch or code number 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

Case study 2: Carbonated Water-based Beverages

Standard Item	Food Regulations (as at 1 st September 2006)	SS 62:1997
Name of the Standard	Soft drinks	Carbonated and non-carbonated beverages
Scope	<ol 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. 	<ol style="list-style-type: none"> Fruit-flavoured carbonated beverages Flavoured carbonated beverages Beverages containing natural extracts Non-flavoured and unsweetened carbonated beverages
Description	Soft drink shall be any substance in liquid or solid form intended for sale as drink for human consumption, either with or without dilution	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 cork or glass or other foreign matter. 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

Case study 2: Carbonated Water-based Beverages

Standard Item	Food Regulations (as at 1 st September 2006)	SS 62:1997
Food Additives	<ol style="list-style-type: none"> May contain: <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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	<ol 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

Case study 2: Carbonated Water-based Beverages

Standard Item	Food Regulations (as at 1 st September 2006)	SS 62:1997
Weight and Measures	<ul style="list-style-type: none"> ▪ Not specified 	<ul style="list-style-type: none"> ▪ Not specified
Labelling	<ol style="list-style-type: none"> 1. The term "non-alcoholic" shall be reserved only for those products which contain not more than 0.5% (v/v) alcohol at 20°C. 2. 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 the following manner: <ol style="list-style-type: none"> (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. <ul style="list-style-type: none"> ▪ Subject to general requirements for labelling ▪ Nutrient labelling is necessary if it a nutrition claim is made (regulation 8A of the Food Regulations) 	<ul style="list-style-type: none"> ▪ Each package shall be legibly and indelibly marked as follows: <ol style="list-style-type: none"> 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.
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

Case study 3: Frozen Prepared Foods

- Currently no standards available

Case study 4: Food Additives

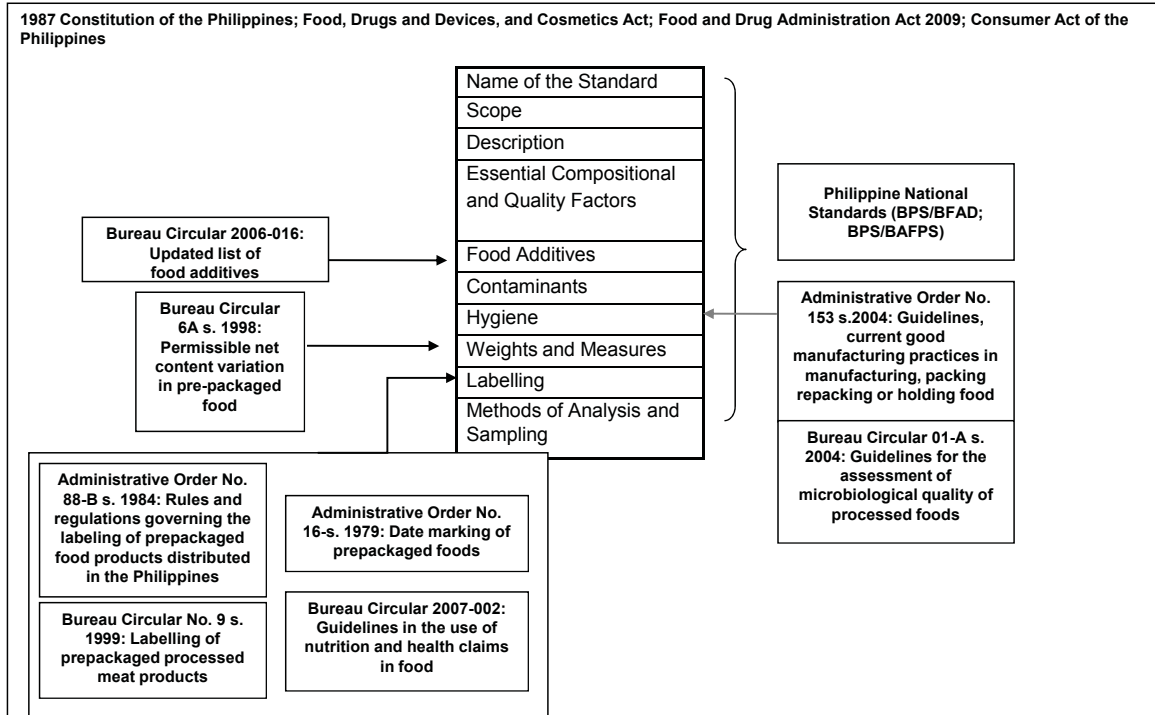
- General guidelines found in the Food Regulations & Schedules
- Food additives are classified into thirteen main categories as follows:
 - Anti-caking agents
 - Anti-foaming agents
 - Anti-oxidants
 - Artificial sweetening agents
 - Chemical preservatives
 - Colouring matters
 - Emulsifiers or stabilizers
 - Flavouring agents
 - Flavour enhancers
 - Humectants
 - Nutrient supplements
 - Sequestrants
 - General purpose food additives

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Standards and Analytical Methods
in Asia

Philippines



Philippine Commodity Standards



Philippines: Food Laws

- **1987 Constitution of the Philippines:**

“The State shall establish and maintain an effective food and drug regulatory system and undertake the appropriate health, manpower development, and research, responsive to the country’s health needs and problems.”

- Main foundation of food laws in the Philippines



Philippines: Food Laws

Food-related laws enacted by Congress:

- **Consumer Act of the Philippines**
 - Provide mandate to Dept of Health to elaborate standards related to food, drug, cosmetics and devices
- **Food, Drug and Devices, and Cosmetics Act**
 - Main food law of the Philippines
 - Delegates responsibility to **Bureau of Food and Drug (BFAD)** to administer and enforce food law
 - Mandates BFAD to elaborate regulations, standards etc
- **Food and Drug Administration Act 2009**
 - Renames and reorganizes BFAD to **FDA**



Philippines: Food Laws

FDA empowered to issue regulations related to food standards:

- **Food additives**
 - Bureau Circular 2006-016: Updated list of food additives
- **Hygiene**
 - Administrative Order No. 153 s.2004: Guidelines, current good manufacturing practices in manufacturing, packing repacking or holding food;
 - Bureau Circular 01-A s. 2004: Guidelines for the assessment of microbiological quality of processed foods
- **Labelling**
 - Administrative Order No. 16-s. 1979: Date marking of prepackaged foods;
 - Administrative Order No. 88-B s. 1984: Rules and regulations governing the labeling of prepackaged food products distributed in the Philippines;
 - Bureau Circular No. 9 s. 1999: Labelling of prepackaged processed meat products;
 - Bureau Circular 2007-002: Guidelines in the use of nutrition and health claims in food
- **Weights and measures**
 - Bureau Circular 6A s. 1998: Permissible net content variation in pre-packaged food



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Philippines: Food Laws

Other food-related laws enacted by Congress:

- **Agriculture and Fisheries Modernization Act of 1997**
 - Mandates **Bureau of Agriculture and Fisheries Product Standards (BAFPS)** to draft agriculture standards and enforcement
- **The Meat Inspection Code of the Philippines**
 - Mandates the **National Meat Inspection Services (NMIS)** as the sole national controlling authority for meat and meat products



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SOUTHEAST ASIA REGION

Philippines: Food Safety Administration

- Responsibilities split between Dept. of Health & Dept. of Agriculture
- DoH: BFAD/FDA
 - All food products apart from agricultural, fisheries & meat
- DoA:
 - BAFPS : agricultural & fisheries
 - NMIS : meat & meat products



Philippines: Mandatory Standards

- FDA elaborates mandatory standards for processed foods through regulations
 - AO 132 s. 1970 Regulation prescribing the Standard of Identity and Quality of Milk and Milk Products
 - AO154 s. 1971 Regulation B-4 Definition and Standards of Identity of Foods: 4.14 Meat and Meat Products, 4.14.01 Sausages
 - AO 136-B s. 1985 Standards for Soluble Coffee with Added Carbohydrates
 - AO 2005-018 Philippine National Standards on Ethnic Food Products



Philippines: Philippines National Standards (PNS)

- Developed jointly by **Bureau of Product Standards** (BPS), in consultation with FDA or BAFPS
- Agriculture (PNS-BAFPS): 73
Food and food products (PNS-BFAD): 21



Philippines: PNS Standards

- Voluntary in nature, though can become mandatory if products affect the life, health and property of its users
 - Food and agricultural products
- PNS-BFAD, PNS-BAFPS standards used by authorities for regulatory purposes – mandatory
- Certification provided by BPS
 - PS Quality Mark



Case study 1: Instant Noodles

Item	Standard
Name of the Standard	PNS/BFAD 18:2008 Flour sticks (<i>pancit canton</i>)
Scope	Processed flour sticks (<i>pancit canton</i>) for human consumption
Description	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 – 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 – 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. 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. 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.

Case study 1: Instant Noodles

Item	Standard	PNS/BFAD 18:2008
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: <ol 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.

Case study 1: Instant Noodles

Item	Standard	PNS/BFAD 18:2008
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: <ol style="list-style-type: none"> a) The name of the product. The name of the product shall be "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. b) The Name and address of either the manufacturer, packer, distributor, importer, exporter or vendor of the food. c) The complete list of ingredients and food additives used in the preparation of the product in descending order of proportion. 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. 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. f) Lot identification marked in code identifying product lot. g) The words "Product of the Philippines" or similar expressions, or the country of origin if imported. 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. ▪ 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

Case study 2: Carbonated Water-based Beverages

Item	Standard	PNS/BFAD 11:2007
Name of the Standard		Citrus beverage products
Scope		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		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.

Case study 2: Carbonated Water-based Beverages

Item	Standard	PNS/BFAD 11:2007
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> Calcium aluminium silicate (synthetic); microcrystalline cellulose; aluminium silicate; carnauba wax <u>Antioxidant</u> Ascorbic acid; calcium ascorbate; erythorbic acid; potassium ascorbate; sodium ascorbate; sodium erythroate <u>Color</u> Carotenoids; chlorophylls, copper complexes; curcumin; riboflavin; sunset yellow; tartrazine <u>Preservatives</u> Benzoates; hydrobenzoates; sorbates; sulphites; carbon dioxide; phosphates; EDTA <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 <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 <u>Sweetener</u> Acesulfame potassium; aspartame; saccharin; sucralose
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.

Case study 2: Carbonated Water-based Beverages

Item	Standard	PNS/BFAD 11:2007
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: <ol 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 and Measures		<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".

Case study 2: Carbonated Water-based Beverages

Item	Standard	PNS/BFAD 11:2007
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: <ol 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.

Case study 3: Frozen Prepared Foods

- Currently no standards available

Case study 4: Food Additives

- Regulations on the application of food additives are found in “Bureau Circular 2006-016: Updated list of food additives”, which adopts the format of the Codex GSFA
- Food additives in the Philippines are categorized into 25 categories, as follows:
 - Acidity regulator
 - Anticaking agent
 - Antifoaming agent
 - Antioxidant
 - Bleaching agent
 - Bulking agent
 - Carbonating agent
 - Color
 - Color retention agent

Case study 4: Food Additives

- Food additives in the Philippines are categorized into 25 categories, as follows:
 - Emulsifier
 - Emulsifying salt
 - Firming agent
 - Flavor enhancer
 - Flour treatment agent
 - Foaming agent
 - Gelling agent
 - Glazing agent
 - Humectant
 - Preservative
 - Propellant
 - Raising agent
 - Sequestrant
 - Stabilizer
 - Sweetener
 - Thickener

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Standards and Analytical Methods in
Asia

**Next Step: Indonesia,
Thailand and Vietnam?**



Fostering Harmonization in a Diverse Region

- **Need for greater harmonization in scientific understanding, regulations and decision making in ASEAN region**
- **ILSI SEA Region identified key issues and areas relevant to region to be harmonized**
 - **Food Safety Standards**
 - **Nutrition labeling and claims**
 - **Scientific substantiation approach**
 - **Regulatory framework**



Food Standards in ASEAN - Not Harmonized

- **Need for greater harmonization in scientific understanding, regulations and decision making in ASEAN region**
- **ILSI SEA Region identified key issues and areas relevant to region to be harmonized**
 - **Food Safety Standards**
 - **Nutrition labeling and claims**
 - **Scientific substantiation approach**
 - **Regulatory framework**



Harmonization of Food Safety Standards 2001

- **ILSI SEA Region collaborated with FAO/WHO to explore potential for reaching consensus to bring national food safety standards in line with Codex**
 - **Organized 1st ASEAN Food Safety Standards Harmonization Workshop**
 - Facilitate exchange of scientific information and knowledge that is essential to harmonization process
 - Discussion between regulators within ASEAN on the science behind food safety standards
 - Discuss rationale underlying the differences in current national safety standards



Harmonization of Food Safety Standards 2001

- **Establish an ASEAN Working Group on Food Safety Standards Harmonization**
 - **Consists of key food regulators from 10 ASEAN countries**

2001-2008

- **A series of 7 ASEAN Workshops have been organized**
 - **Updates on scientific information on chemical and microbial risk assessment approach, exposure assessment, etc**
 - **Provide training and information on how to perform risk assessments**
 - **Member countries provided updates on their national food safety standards regulations**
 - **Progress of harmonization towards Codex standards reported**
 - Done through the use of online database
- **2009**
 - **8th ASEAN Workshop**



Harmonization of Food Safety Standards

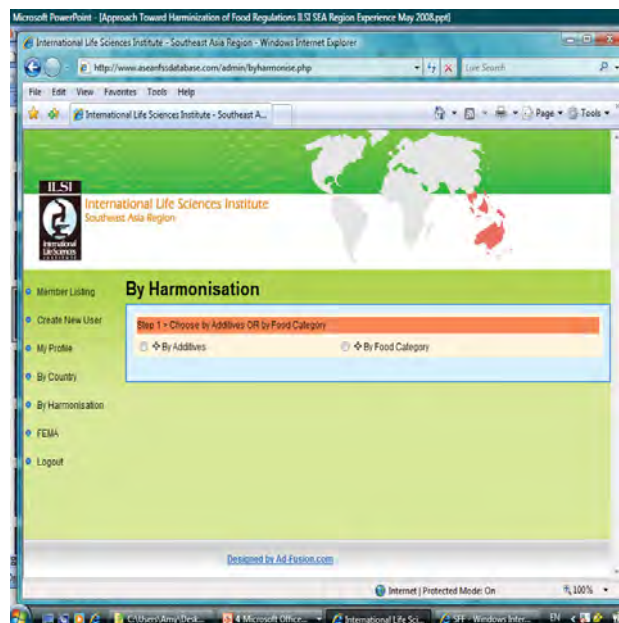
Online Food Safety Database

- **ILSI SEA Region set up and continue to manage an on-line ASEAN Food Safety Standards database**
 - Consists of Codex GSFA and 10 ASEAN countries' standards on 45 selected food additives
 - Facilitate systematic review and periodical updating by participating ASEAN countries
 - Helpful tool to track harmonization status



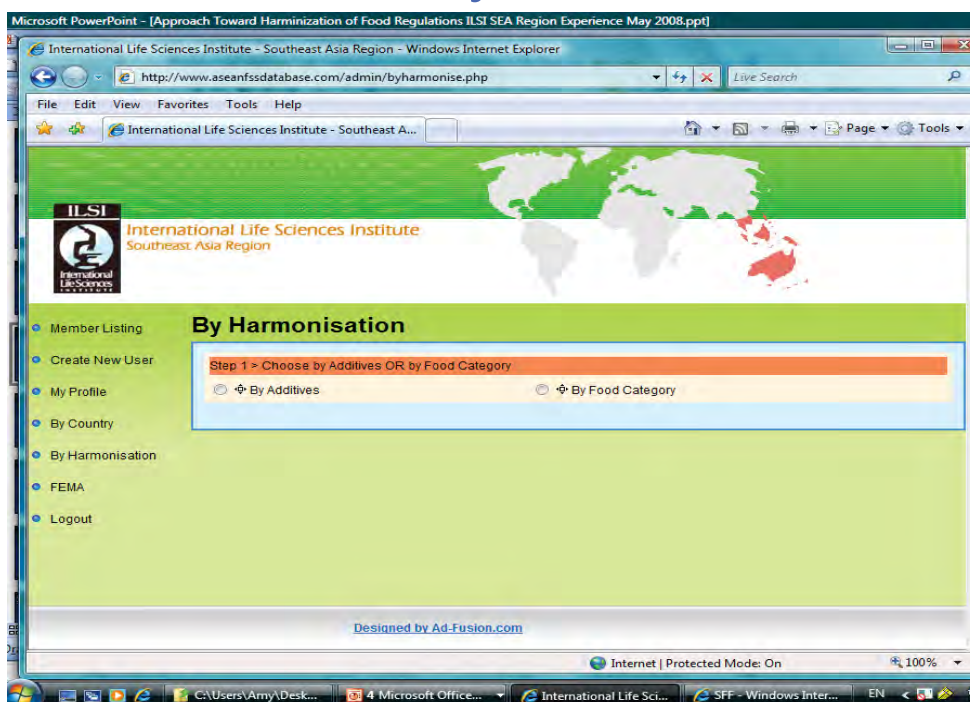
Harmonization Progress (2003-2009)

- **45 Substances**
 - **22 Preservatives**
 - **17 Colourings**
 - **6 Sweeteners**
- **10 ASEAN countries**
- **GSFA reference: Y 2007**
- **Food categories:
239 ⇒ 268**





ASEAN Food Safety Standards Database



ASEAN Food Safety Standards Database

The screenshot shows a web browser window displaying a comparison listing for the additive Brilliant Blue in Singapore. The page title is "Comparison Listing by Additive". The country is Singapore, the additive type is Colouring Agent, and the substance name is Brilliant Blue. The table below compares GSGFA and Country Value for various food categories.

Food Cat Nos.	Food Description	GSGFA	Country Value	Status
01.0.0.0	DAIRY PRODUCTS AND ANALOGUES, EXCLUDING PRODUCTS OF FOOD CATEGORY 02.0	Not Permitted	Not Permitted Unless Otherwise Specified.	⚠
01.1.0.0	Milk and dairy-based drinks	Not Permitted	Not Permitted Unless Otherwise Specified.	⚠
01.1.1.0	MILK AND BUTTERMILK (PLAIN)	Not Permitted	Not Permitted Unless Otherwise Specified.	⚠
01.1.1.1	Milk (plain)	Not Permitted	Not Permitted	😊
01.1.1.2	Buttermilk (plain)	Not Permitted	Not Permitted	😊
01.1.2.0	DAIRY-BASED DRINKS, FLAVOURED AND/OR FERMENTED (e.g., CHOCOLATE MILK, COCOA, EGGNOG, DRINKING YOGHURT, WHEY-BASED DRINKS)	150	GMP	😊
01.2.0.0	Fermented and renneted milk products (plain), excluding food category 01.1.2 (dairy-based drinks)	Not Permitted	Not Permitted Unless Otherwise Specified.	⚠
01.2.1.0	FERMENTED MILKS (PLAIN)	150	Not Permitted	⚠
01.2.1.1	Fermented milks (plain), not heat-treated after fermentation	Not Permitted	Not Permitted	😊
01.2.1.2	Fermented milks (plain), heat-treated after fermentation	Not Permitted	Not Permitted	😊
01.2.2.0	RENNETED MILK (PLAIN)	Not Permitted	Not Permitted	😊
01.3.0.0	Condensed milk and analogues (plain)	Not Permitted	Not Permitted Unless Otherwise Specified.	⚠
01.3.1.0	CONDENSED MILK (PLAIN)	Not Permitted	Not Permitted	😊
01.3.2.0	BEVERAGE WHITENERS	Not Permitted	Product Is Not Defined Under The Food Regulations, But Colours May Be Allowed If Use Is Justified.	⚠
01.4.0.0	Cream (plain) and the like	Not Permitted	Not Permitted Unless Otherwise Specified.	⚠



ASEAN Food Safety Standards Database

SFF - Windows Internet Explorer
http://www.aseanfooddatabase.com/report_harmonise.php

Comparison Listing by Additive
Additive Type: Sweeteners
Substance Name: Acesulfame-K

Food Cat Nos.	Food Description	GSFA	Singapore	Malaysia	Brunei Darussalam	Thailand	Indonesia	Philippines	Vietnam	Laos	Cambodia	Myanmar
01.0.0.0	DAIRY PRODUCTS AND ANALOGUES, EXCLUDING PRODUCTS OF FOOD CATEGORY 02.0	Not Permitted	Ⓜ	☺	☺	☺	☺	☺	☺	Ⓜ	Ⓜ	☺
01.1.0.0	Milk and dairy-based drinks	Not Permitted	Ⓜ	☺	☺	☺	☺	☺	☺	Ⓜ	Ⓜ	☺
01.1.1.0	MILK AND BUTTERMILK (PLAIN)	Not Permitted	Ⓜ	☺	☺	☺	☺	☺	☺	Ⓜ	Ⓜ	☺
01.1.1.1	Milk (plain)	Not Permitted	☺	☺	☺	☺	☺	☺	☺	Ⓜ	Ⓜ	☺
01.1.1.2	Buttermilk (plain)	Not Permitted	☺	☺	☺	☺	☺	☺	☺	Ⓜ	Ⓜ	☺
01.1.2.0	DAIRY-BASED DRINKS, FLAVOURED AND/OR FERMENTED (e.g., CHOCOLATE MILK, COCOA, EGGNOG, DRINKING YOGHURT, WHEY-BASED DRINKS)	500	Ⓜ	Ⓜ	Ⓜ	Ⓜ	☺	☺	☺	Ⓜ	Ⓜ	☺
01.2.0.0	Fermented and renneted milk products (plain), excluding food category 01.1.2 (dairy-based drinks)	GMP	Ⓜ	Ⓜ	Ⓜ	Ⓜ	Ⓜ	☺	☺	Ⓜ	Ⓜ	☺
01.2.1.0	FERMENTED MILKS (PLAIN)	Not Permitted	Ⓜ	☺	☺	☺	☺	☺	☺	Ⓜ	Ⓜ	☺
01.2.1.1	Fermented milks (plain), not heat-treated after fermentation	Not Permitted	Ⓜ	☺	☺	☺	☺	☺	☺	Ⓜ	Ⓜ	☺

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Plans and Next Step

- To continue updating the database on coloring, sweeteners, and preservatives, and plan to add new food additives mentioned below
 - Antioxidants
 - Stabilizers
 - Emulsifiers
 - Thickeners
 - Acidity regulators
- To extend the database with contaminants in food?



International Life Sciences Institute
SOUTHEAST ASIA REGION

Thank you
ありがとうございます
谢谢
감사합니다