平成 22 年度農山魚村 6 次産業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

（Ⅱ）

平成 23（2011）年 3 月

特定非営利活動法人 国際生命科学研究機構（ILSI Japan）

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「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（II）

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太田裕見　　サントリーウエルネス㈱
荻原葉子　　味の素㈱ ASEAN Regional HQs
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草野香理　　キリングループオフィス㈱
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末木一夫　　ILSI Japan
篠原久実　　ILSI Japan
茶野亜紀　　ILSI Japan
ILSI Korea（韓国支部）
ILSI Focal Point in China（中国事務所）
ILSI Southeast Asia Region（東南アジア地域支部）

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それらの分析方法を調査するとともに、品質管理手法や資源・環境対策についても域内での情報の交換、共有化及び対話を通じて、我が国及び当該国の食品産業の振興及び円滑なビジネス展開に資する。本調査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、その結果は平成 23 年 3 月 4 日（金)、タイ バンコクの Pathumwan Princess Hotel において、「**アジア・太平洋地域の食品規格基準、資源・環境対策に係る情報の共有化に関する国際会議－食品安全と健康に係る食品産業の挑戦と機会－**」を開催した。

なお、本提案事業は平成 21 年度の同事業を引き継ぐものであり、平成 21 年度事業においてはコーデックス、韓国、中国及び東南アジアの内マレーシア、シンガポール、フィリピンについて調査を実施した。平成 22 年 3 月に開催した同調査結果の共有化のためのワークショップ（東京）において多くの参加者から、このような情報に対する必要性とおおきな期待が示されたことから、平成 22 年度においては、調査国をタイ、ベトナム、インドネシアに拡大し、特に分析方法について調査を深めた。

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。

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冷凍食品を対照とし、参考として牛乳についても情報を収集した。

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 韓国支部、ILSI 中国事務所および ILSI 東南アジア地域支部（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・規準及び分析法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国際会議を開き、結果を共有した。

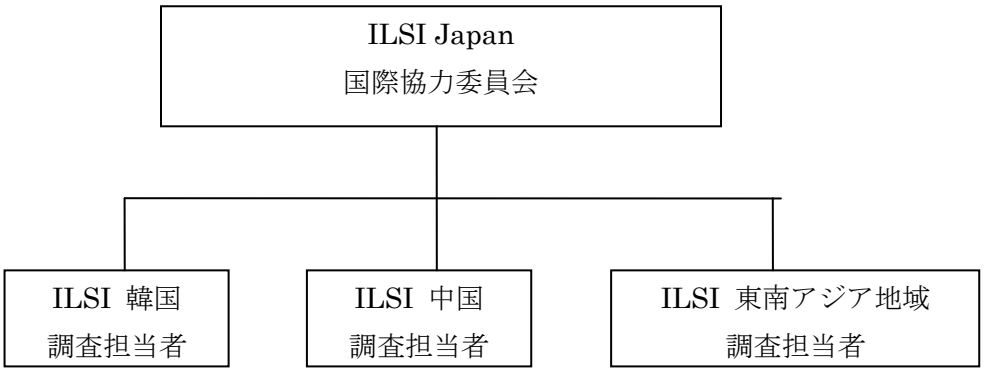
2.4　実施体制：

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、乳製品等）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、規格基準及び分析方法に関する項目を提案、協力 ILSI 支部（韓国、中国、東南アジア）及び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

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 中国事務所：　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、インドネシア、タイ、ベトナム



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 22 年 6 月～10 月
調査表の記述:　平成 22 年 10 月～12 月
調査表の集計、課題の抽出：　平成 23 年 1 月～2 月
国際会議の開催：　平成 23 年 3 月 4 日
報告書の作成：　平成 23 年 3 月 31 日
調査プログラム全体の期間：　11 か月

3. 各国の調査結果

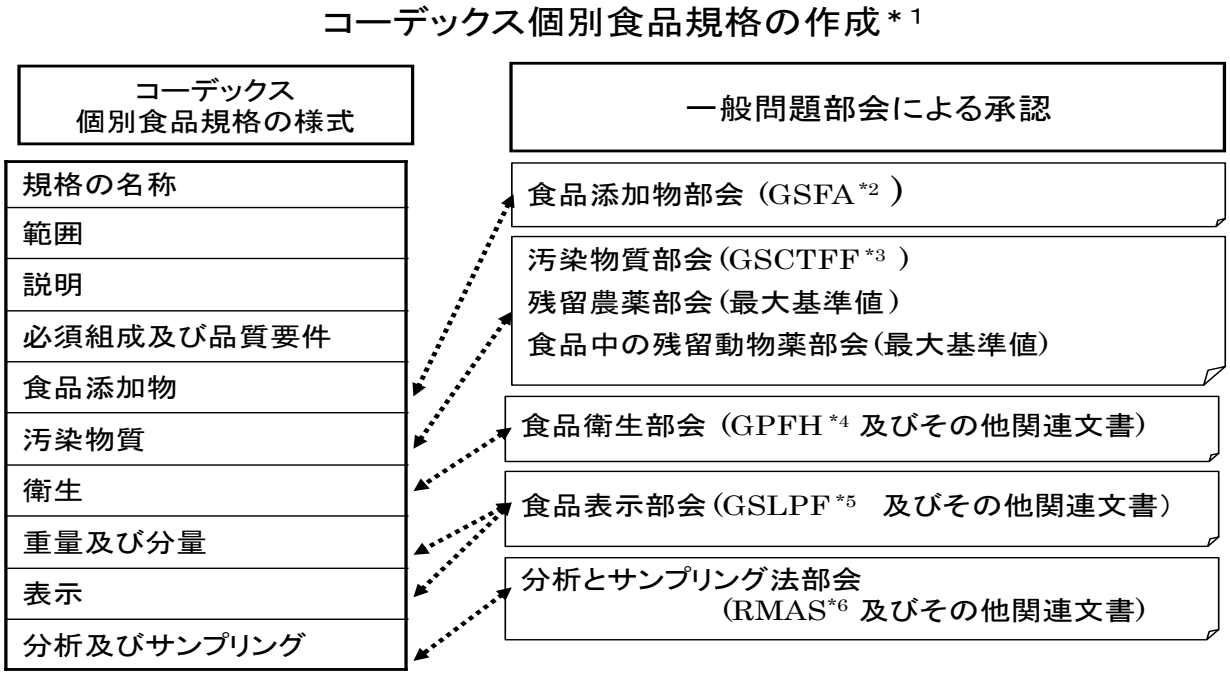
3.1　コーデックス委員会における個別食品規格

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

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。

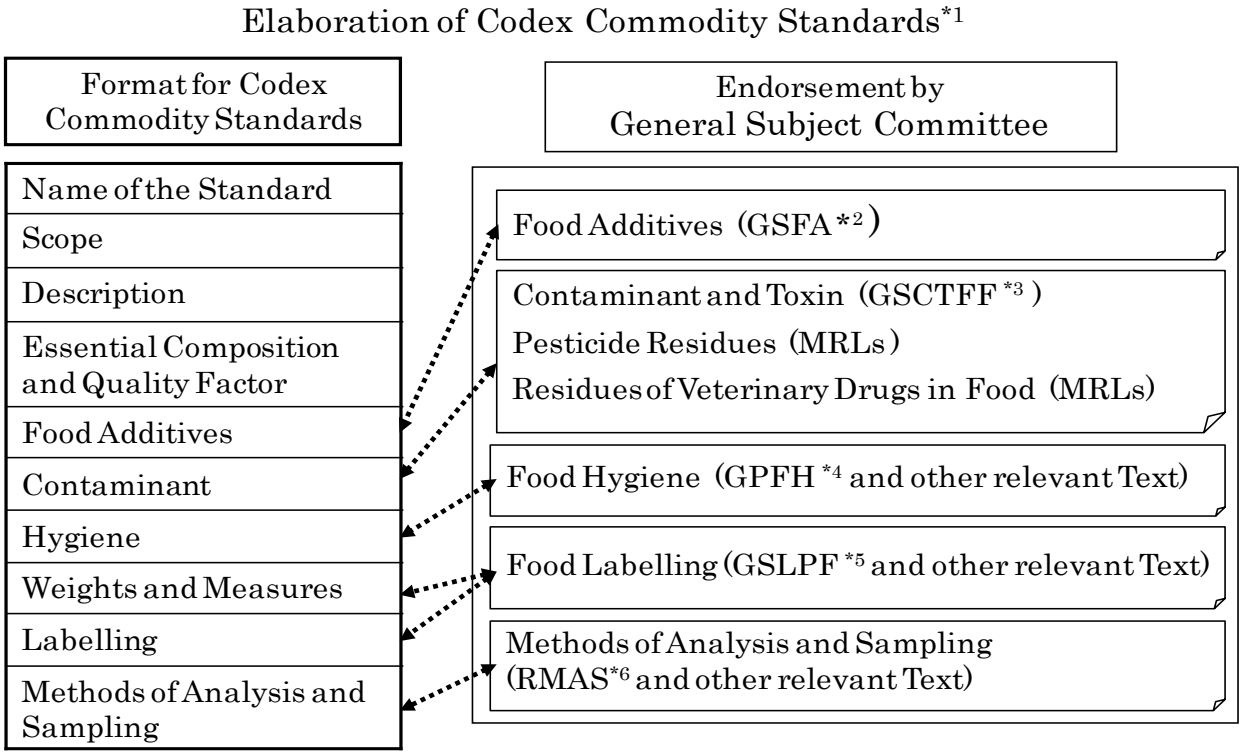
コーデックス委員会は機能的に、個別食品規格を検討する部会（Commodity Committee）と食品全般に水平的に適用される一般問題を検討する部会（General Subject Committee）に分けられる。個別食品規格の検討部会で策定される規格は、一般問題部会での食品全般からの観点で検討、承認が必要となっている。



*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：推奨される分析とサンプリング方法

図 3.1-1a　コーデックス委員会における個別食品規格

[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



*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

図 3.1-1b　コーデックス委員会における各食品共通の一般規格

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, 19th Edition）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、コーデックッス委員会では約 200 品目の個別食品規格が制定されている（平成 21 年度報告書 表 3.1-2)。

同規格は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（平成 21 年度報告書　表 3.1-3)、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（平成 21 年度報告書　表 3.1-4）がある。これらが全体の俯瞰には役立つ。

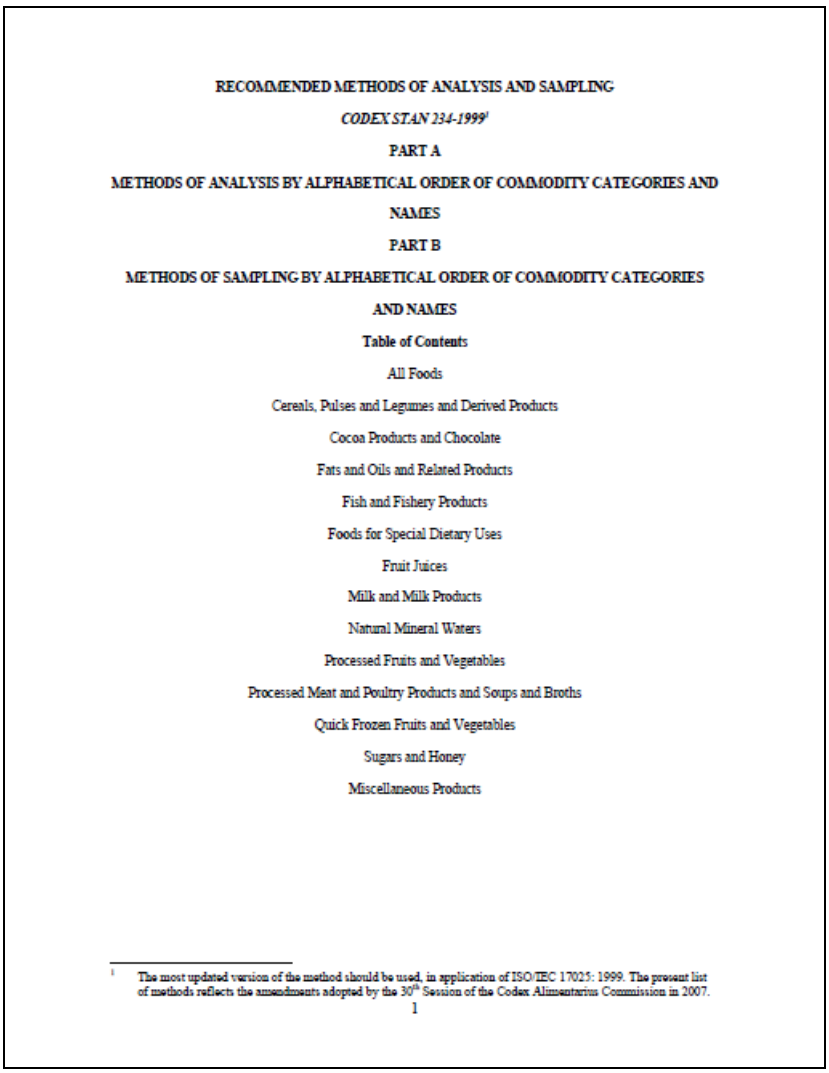
3.1.3　コーデックス分析・サンプリング法

[2] ftp://ftp.fao.org/codex/Publications/ProcManuals/Manual_19e.pdf
[3] http://www.codexalimentarius.net/gsfaonline/CXS_192e.pdf

コーデックス委員会の一般問題部会に分析・サンプリング法部会がある。コーデックスにおける分析・サンプリング法部会の役割（Terms of Reference）は以下の通りである。

（1）食品規格に適した分析方法及びサンプリング方法の基準を策定する。
（2）食品規格のための国際的な調整機関として機能する。
（3）食品規格に適し、一般的に適用できる分析方法及びサンプリング方法を特定する。
（4）個別食品規格部会によって提案された分析方法及びサンプリング方法を検討し、修正、承認する。
（5）必要に応じ、サンプリング方法及び手順を作成する。
（6）当部会に提出された特定の分析方法及びサンプリング方法の問題を検討する。
（7）食品試験機関制度の評価の手続き、プロトコール、ガイドラインまたは関連文書を策定する。

これまでに策定された分析方法及びサンプリング法は、推奨される分析・サンプリング法（CODEX　STAN 234-1999[4]）に纏められている。



RECOMMENDED METHODS OF ANALYSIS AND SAMPLING

CODEX STAN 234-1999[1]

PART A

METHODS OF ANALYSIS BY ALPHABETICAL ORDER OF COMMODITY CATEGORIES AND NAMES

PART B

METHODS OF SAMPLING BY ALPHABETICAL ORDER OF COMMODITY CATEGORIES AND NAMES

Table of Contents

[1] The most updated version of the method should be used, in application of ISO/IEC 17025: 1999. The present list of methods reflects the amendments adopted by the 30th Session of the Codex Alimentarius Commission in 2007.

1

[4] http://www.codexalimentarius.net/download/standards/388/CXS_234e.pdf

PART A

METHODS OF ANALYSIS BY ALPHABETICAL ORDER OF COMMODITY CATEGORIES AND NAMES

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
All Foods				
All foods	Acesulfame K, Aspartame	EN 12856 : 1999-04	High performance liquid chromatography	II
All foods	Cyclamate	EN 12857 : 1999-04	High performance liquid chromatography	II
All foods	Cyclamate	NMKL 123 (1998)	Spectrophotometry	III
All foods	Saccharin	EN 12856 : 1999-04	High performance liquid chromatography	III
All Foods (see also meat products)	Nitrates and/or Nitrites	EN 12014-1:1997-04	Part 1- General considerations	N/A
Individual Foods[2]	Sulphites	EN 1988-1 : 1998-02 AOAC 990.28	Part 1: Optimized Monier-Williams method	III
Individual Foods[3]	Sulphites	EN 1988-2:1998 -02 NMKL 135 (1990)	Part 2: Enzymatic method	III
Cereals, Pulses and Legumes and Derived Products				
Certain pulses	Moisture	ISO 665:1977 (confirmed 1995)	Gravimetry	I
Degermed maize (corn) meal and maize (corn) grits	Ash	AOAC 923.03 ISO 2171:1993 ICC Method No 104/1 (1990)	Gravimetry	I
Degermed maize (corn) meal and maize (corn) grits	Fat, crude	AOAC 945.38F; 920.39C	Gravimetry (ether extraction)	I
Degermed maize (corn) meal and maize (corn) grits	Moisture	ISO 712:1998 ICC Method No 110/1 (1986)	Gravimetry	I

[2] Hominy, fruit juice, sea food
[3] Wine, dried apples, lemon juice, potato flakes, sultanas, beer

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Degermed maize (corn) meal and maize (corn) grits	Particle size (granularity)	AOAC 965.22	Sieving	I
Degermed maize (corn) meal and maize (corn) grits	Protein	ICC Method No 105/1 (1986)	Titrimetry, Kjeldahl digestion	I
Durum wheat semolina and durum wheat flour	Ash (semolina)	AOAC 923.03 ISO 2171:1993	Gravimetry	I
Durum wheat semolina and durum wheat flour	Moisture	ISO 712:1998 ICC Method 110/1 (1986)	Gravimetry	I
Durum wheat semolina and durum wheat flour	Protein (N x 5.7)	ICC Method No 105/1	Titrimetry, Kjeldahl digestion	I
Instant Noodles	Extraction of oil from instant noodles	described in the standard	Gravimetry	I
Instant Noodles	Acid Value	described in the standard	Titrimetry	I
Instant Noodles	Moisture	described in the standard	Gravimetry	
Maize (corn)	Moisture	ISO 6540:1980 (confirmed 1994)	Gravimetry	I
Peanuts (raw)	Aflatoxins, total	AOAC 991.31	Immunoaffinity column (Aflatest)	II
Peanuts (raw)	Aflatoxins, total	AOAC 993.17	Thin layer chromatography	III
Peanuts (intended for further processing)	Aflatoxins, total	AOAC 975.36	Romer minicolmn	III
Peanuts (Cereals, shell-fruits and derived products (including peanuts))	Sum of aflatoxins B_1, B_2, G_1 and G_2	EN 12955 : 1999-07 ISO 16050:2003	HPLC with post column derivatization and immunoaffinity column clean up	III
Peanuts (intended for further processing)	Aflatoxins, total	AOAC 979.18	Holaday-Velasco minicolumn	III
Pearl millet flour	Ash	AOAC 923.03	Gravimetry	I
Pearl millet flour	Colour	*Modern Cereal Chemistry*, 6th Ed., D.W. Kent-Jones and A.J. Amos (Ed.), pp. 605-612, Food Trade Press Ltd, London, 1969.	Colorimetry using specific colour grader	IV

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Pearl millet flour	Fat, crude	AOAC 945.38F; 920.39C	Gravimetry (ether extraction)	I
Pearl millet flour	Fibre, crude	ISO 5498:1981 (B.5 Separation)	Gravimetry	I
Pearl millet flour	Moisture	ISO 712:1998 ICC Method No 110/1 (1986)	Gravimetry	I
Pearl millet flour	Protein	AOAC 920.87	Titrimetry, Kjeldahl digestion	I
Sorghum flour	Ash	AOAC 923.03 ISO 2171:1993 ICC Method No 104/1 (1990)	Gravimetry	I
Sorghum flour	Colour	*Modern Cereal Chemistry*, 6th Ed., D.W. Kent-Jones and A.J. Amos (Ed.), pp. 605-612, Food Trade Press Ltd, London, 1969.	Colorimetry using specific colour grader	IV
Sorghum flour	Fat, crude	AOAC 945.38F; 920.39C	Gravimetry (ether extraction)	I
Sorghum flour	Fibre, crude	ICC Method No 113 (1972) ISO 6541:1981 (confirmed 1996)	Gravimetry	I
Sorghum flour	Moisture	ISO 712:1998 ICC Method No 110/1 (1986)	Gravimetry	I
Sorghum flour	Particle size (granularity)	AOAC 965.22	Sieving	I
Sorghum flour	Protein	ICC Method No 105/1 (1986)	Titrimetry, Kjeldahl digestion	I
Sorghum flour	Tannins	ISO 9648:1988 (confirmed 1994)	Spectrophotometry	I
Sorghum grains	Ash	AOAC 923.03 ISO 2171:1993 ICC Method No 104/1 (1990)	Gravimetry	I
Sorghum grains	Fat, crude	AOAC 945.38F, 920.39C	Gravimetry (ether extraction)	I
Sorghum grains	Moisture	ISO 6540:1980 (confirmed 1994)	Gravimetry	I
Sorghum grains	Protein	ICC Method No 105/1 (1986)	Titrimetry, Kjeldahl digestion	I
Sorghum grains	Tannins	ISO 9648:1988 (confirmed 1994)	Spectrophotometry	I

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Soy protein products	Ash	AOAC 923.03 ISO 2171:1993 (Method B)	Gravimetry	I
Soy protein products	Fat	CAC/RM 55-1976 - Method 1	Gravimetry (extraction)	I
Soy protein products	Fibre, crude	ISO 5498:1981	Gravimetry	I
Soy protein products	Moisture	AOAC 925.09	Gravimetry (vacuum oven)	I
Soy protein products	Protein	AOAC 955.04D (using factor 6.25)	Titrimetry , Kjeldahl digestion	II
Vegetable protein products	Ash	AOAC 923.03 ISO 2171:1993 (Method B)	Gravimetry, Direct	I
Vegetable protein products	Fat	CAC/RM 55-1976 - Method 1	Gravimetry (extraction)	I
Vegetable protein products	Fibre, crude	AACC (1982) 32-17	Ceramic fiber filteration	I
Vegetable protein products	Moisture	AOAC 925.09	Gravimetry (vacuum oven)	I
Vegetable protein products	Protein	AOAC 955.04D (using factor 6.25)	Titrimetry, Kjeldahl digestion	II
Wheat flour	Ash	AOAC 923.03 ISO 2171:1993 ICC Method No 104/1 (1990)	Gravimetry	I
Wheat flour	Fat acidity	AOAC 939.05	Titrimetry	I
Wheat flour	Moisture	ISO 712:1998 ICC Method No 110/1 (1986)	Gravimetry	I
Wheat flour	Particle size (granularity)	AOAC 965.22	Sieving	I
Wheat flour	Protein	ICC Method No 105/1 (1986)	Titrimetry, Kjeldahl digestion	I
Wheat protein products including wheat gluten	Protein	Vital wheat gluten and devitalized wheat gluten AOAC 979.09 (wheat protein in grain Nx5.7)	Kjeldahl	I
		Solubilized wheat protein AOAC 920.87 (wheat protein in flour Nx5.7)	Kjeldahl	I

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Wheat protein products including Wheat gluten	Fibre, crude	AOAC 962.09	Ceramic fiber filteration	I
Wheat protein products including Wheat gluten	Ash	AOAC 923.03 ISO 2171:1980, method B	Gravimetry	I
Whole and decorticated pearl millet grains	Ash	AOAC 923.03	Gravimetry	I
Whole and decorticated pearl millet grains	Fat, crude	AOAC 945.38F; 920.39C	Gravimetry (ether extraction)	I
Whole and decorticated pearl millet grains	Fibre, crude	ISO 5498:1981 (B.5 Separation)	Gravimetry	I
Whole and decorticated pearl millet grains	Moisture	ISO 712:1998 ICC Method No 110/1 (1986)	Gravimetry	I
Whole and decorticated pearl millet grains	Protein	AOAC 920.87	Titrimetry, Kjeldahl digestion	I
Whole maize (corn) meal	Ash	AOAC 923.03 ISO 2171:1993 ICC Method No 104/1 (1990)	Gravimetry	I
Whole maize (corn) meal	Fat, crude	AOAC 945.38F; 920.39C	Gravimetry (ether extraction)	I
Whole maize (corn) meal	Moisture	ISO 712:1998 ICC Method No 110/1 (1986)	Gravimetry	I
Whole maize (corn) meal	Particle size (granularity)	AOAC 965.22	Sieving	I
Whole maize (corn) meal	Protein	ICC Method No 105/1 (1986)	Titrimetry, Kjeldahl digestion	I
Cocoa Products and Chocolate				
Chocolate and chocolate products				
Chocolate and chocolate products	Cocoa butter	AOAC 963.15 IOCCC 14-1972	Gravimetry (Soxhlet extraction)	I

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Chocolate and chocolate products	Fat-free cocoa solids	AOAC 931.05	Oven evaporation and factor	I
Chocolate and chocolate products	Fat-free milk solids	IOCCC 17-1973 or AOAC 939.02	Titrimetry, Kjeldahl digestion; after extraction of milk proteins	II
Chocolate and chocolate products	Fat, total	AOAC 963.15	Gravimetry (Soxhlet extraction)	I
Chocolate and chocolate products	Milkfat	IOCCC 5-1962 AOAC 945.34; 925.41B; 920.80	Titrimetry/Distillation	I
Chocolate and chocolate products	Moisture	IOCCC 26-1988 or AOAC 977.10 (Karl Fischer method); or AOAC 931.04 or IOCCC 1-1952	Gravimetry	I
Chocolate and chocolate products	Non-cocoa butter vegetable fat	AOCS Ce 10/02 and described in the Standard	Described in the Standard	I
Cocoa (Cacao) Mass or Cocoa/ Chocolate Liquor, and Cocoa Cake	Cocoa shell	AOAC 968.10 and 970.23	Spiral vessel count, Stone cell count	I
Cocoa (Cacao) Mass or Cocoa/ Chocolate Liquor, and Cocoa Cake	Fat	AOAC 963.15 or IOCCC 14 (1972)	Gravimetry (Soxhlet extraction)	I
Cocoa butter	Free fatty acids	ISO660:1996 amended 2003; or AOCS Cd 3d-63 (03)	Titrimetry	I
Cocoa butter	Unsaponifiable matter	ISO 3596:2000 or ISO 18609: 2000; or AOCS Ca 6b-53 (01)	Titrimetry after extraction with diethyl ether	I
Cocoa powders (cocoa) and dry cocoa-sugar mixtures	Moisture	IOCCC 26-1988 or AOAC 977.10 (Karl Fischer method)	Gravimetry	I
Fats and Oils and Related Products				
Fats and Oils (all)	Arsenic	AOAC 952.13 (Codex general method)	Colorimetry (diethyldithiocarbamate)	II
Fats and Oils (all)	Arsenic	AOAC 942.17 (Codex general method)	Colorimetry (molybdenum blue)	III
Fats and Oils (all)	Arsenic	AOAC 985.16 (Codex general method)	Atomic absorption spectrophotometry	III

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Fats and oils	Butylhydroxyanisole, butylhydroxytoluene, tert-butylhydroquinone, & propyl gallate	AOAC 983.15; or AOCS Ce-6-86	Liquid chromatography	II
Fats and Oils (all)	Insoluble impurities	ISO 663:2007	Gravimetry	I
Fats and Oils (all)	Lead	AOAC 994.02 ISO 12193:2004 (Codex general method) or AOCS Ca 18c-91 (03)	Atomic absorption spectrophotometry (direct graphite furnace)	II
Fats and Oils (all)	Matter volatile at 105°C	ISO 662:1998	Gravimetry (open-drying)	I
Fats and Oils (all)	Soap content	BS 684 Section 2.5; or AOCS Cc 17-95 (97)	Gravimetry	I
Fats and oils not covered by individual standards	Acid Value	ISO 660:1996; or AOCS Cd 3d-63 (03)	Titrimetry	I
Fats and oils not covered by individual standards	Copper and Iron	AOAC 990.05 ISO 8294:1994 or AOCS Ca 18b-91 (03) (Codex general method)	Atomic absorption Spectrophotometry (direct graphite furnace)	II
Fats and oils not covered by individual standards	Peroxide value	AOCS Cd 8b-90 ISO 3961:1996	Titrimetry using *iso*-octane	I
Fat spreads and blended spreads	Fat content	ISO 17189 | IDF 194: 2003	Gravimetry	I
Named Animal Fats	Acidity	ISO 660:1996 amended 2003; or AOCS Cd 3d-63 (03)	Titrimetry	I
Named Animal Fats	GLC ranges of fatty acid composition	ISO 5508: 1990 and ISO 5509: 2000 or AOCS Ce 2-66 (97) and Ce 1e-91 (01) or Ce 1f-96 (02)	Gas chromatography of methyl esters	II

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Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Named Animal Fats	Copper and Iron	AOAC 990.05 ISO 8294:1994; or AOCS Ca 18b-91 (03) (Codex general method)	Atomic absorption Spectrophotometry (direct graphite furnace)	II
Named Animal Fats	Iodine value (IV)	ISO 3961: 1996; or AOAC 993.20; or AOCS Cd 1d-1992 (97)	Wijs-Titrimetry	I
Named Animal Fats	Peroxide value	AOCS Cd 8b-90 (97) ISO 3961:1996	Titrimetry using *iso*-octane	I
Named Animal Fats	Relative density	ISO/AOCS method for apparent density to be inserted	Pycnometry	II
Named Animal Fats	Refractive index	ISO 6320:2000; or AOCS Cc 7-25 (02)	Refractometry	II
Named Animal Fats	Saponification value	ISO 3657:2002; or AOCS Cd 3-25 (03)	Titrimetry	I
Named Animal Fats	Unsaponifiable matter	ISO 3596:2000 or ISO 18609: 2000; or AOCS Ca 6b-53 (01)	Titrimetry after extraction with diethyl ether	I
Named Animal Fats	Titre	ISO 935:1988; or AOCS Cc 12-59 (97)	Thermometry	I
Named Vegetable Oils	Acidity	ISO 660: 1996, amended 2003; or AOCS Cd 3d-63 (03)	Titrimetry	I
Named Vegetable Oils	Apparent density	ISO 6883: 2000, with the appropriate conversion factor; or AOCS Cc 10c-95 (02)	Pycnometry	I
Named Vegetable Oils	Baudouin test (modified Villavecchia or sesameseed oil test)	AOCS Cb 2-40 (97)	Colour reaction	I
Named Vegetable Oils	Carotenoids, total	BS 684 Section 2.20	Spectrophotometry	II
Named Vegetable Oils				
Named Vegetable Oils	Copper and iron	ISO 8294: 1994; or AOAC 990.05; or AOCS Ca 18b-91 (03)	AAS	II
Named Vegetable Oils	Crismer value	AOCS Cb 4-35 (97) and AOCS Ca 5a-40 (97)	Turbidity	I

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Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Named Vegetable Oils	GLC ranges of fatty acid composition	ISO 5508: 1990 and ISO 5509: 2000; or AOCS Ce 2-66 (97) and Ce 1e-91 (01) or Ce 1f-96 (02)	Gas chromatography of methyl esters	II
Named Vegetable Oils	Halphen test	AOCS Cb 1-25	Colorimetry	I
Named Vegetable Oils	Insoluble impurities	ISO 663: 2000	Gravimetry	I
Named Vegetable Oils	Iodine value (IV)	Wijs - ISO 3961: 1996; or AOAC 993.20; or AOCS Cd 1d-1992 (97); or NMKL 39 (2003)	Wijs-Titrimetry [4]	I
Named Vegetable Oils	Lead	AOAC 994.02 ; or ISO 12193: 2004; or AOCS Ca 18c-91 (03)	Atomic Absorption	II
Named Vegetable Oils	Moisture & volatile matter at 105°C	ISO 662: 1998	Gravimetry	I
Named Vegetable Oils	Peroxide value (PV)	AOCS Cd 8b-90 (03); or ISO 3960: 2001	Titrimetry	I
Named Vegetable Oils	Refractive index	ISO 6320: 2000; or AOCS Cc 7-25 (02)	Refractometry	II
Named Vegetable Oils	Reichert value and Polenske value	AOCS Cd 5-40 (97)	Titrimetry	I
Named Vegetable Oils	Relative density	IUPAC 2.101 with the appropriate conversion factor	Pycnometry	II
Named Vegetable Oils	Saponification value (SV)	ISO 3657: 2002; or AOCS Cd 3-25 (03)	Titrimetry	I
Named Vegetable Oils	Slip point	ISO 6321:2002 for all oils; AOCS Cc 3b-92 (02) for all oils except palm oils; AOCS Cc 3-25 (97) for palm oils only	Open ended capillary tube	I
Named Vegetable Oils	Soap content	BS 684 Section 2.5; or AOCS Cc 17-95 (97)	Gravimetry	I

[4] It is possible to calculate the Iodine Value from fatty acid composition data obtained by gas chromatography e.g. using AOCS Cd 1b-87 (97)

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Named Vegetable Oils	Sterol content	ISO 12228: 1999; or AOCS Ch 6-91 (97)	Gas chromatography	II
Named Vegetable Oils	Tocopherol content	ISO 9936: 1997; or AOCS Ce 8-89 (97)	HPLC	II
Named Vegetable Oils	Unsaponifiable matter	ISO 3596: 2000; or ISO 18609: 2000; or AOCS Ca 6b-53 (01)	Gravimetry	I
Olive Oils and Olive Pomace Oils	Absorbency in ultra-violet	COI/T.20/Doc. No. 19 or ISO 3656:2002 or AOCS Ch 5-91 (01).	Absorption in ultra violet	II
Olive Oils and Olive Pomace Oils	Acidity, free (acid value)	ISO 660:1996, amended 2003 or AOCS Cd 3d-63 (03)	Titrimetry	I
Olive Oils and Olive Pomace Oils	Alpha-tocopherol	ISO 9936:1997	HPLC	II
Olive Oils and Olive Pomace Oils				
Olive Oils and Olive Pomace Oils	Difference between the actual and theoretical ECN 42 triglyceride content	COI/T.20/Doc. no. 20 or AOCS Ce 5b-89 (97)	Analysis of triglycerides of HPLC and calculation	I
Olive Oils and Olive Pomace Oils	Erythrodiol + uvaol content	IUPAC 2.431.	Gas chromatography	II
Olive Oils and Olive Pomace Oils	Fatty acids in the 2-position of the triglycerides	ISO 6800:1997 or AOCS Ch 3-91 (02)	Gas chromatography	I
Olive Oils and Olive Pomace Oils	Halogenated solvents, traces	COI/T.20/Doc. no. 8.	Gas chromatography	II
Olive Oils and Olive Pomace Oils	Insoluble impurities in light petroleum	ISO 663:2000	Gravimetry	I
Olive Oils and Olive Pomace Oils	Iodine value	ISO 3961:1996 or AOAC 993.20 or AOCS Cd 1d-92 (97) or NMKL 39 (2003)	Wijs-Titrimetry	I
Olive Oils and Olive Pomace Oils	Iron and copper	ISO 8294:1994 or AOAC 990.05	AAS	II
Olive Oils and Olive Pomace Oils	Lead	AOAC 994.02 or ISO 12193:2004 or AOCS Ca 18c-91(97)	AAS	II
Olive Oils and Olive Pomace Oils	Moisture and volatile matter	ISO 662:1998	Gravimetry	I
Olive Oils and Olive Pomace Oils				
Olive Oils and Olive Pomace Oils	Organoleptic characteristics	COI/T.20/Doc. no. 15.	Panel test	I
Olive Oils and Olive Pomace Oils	Peroxide value	ISO 3960:2001 or AOCS Cd 8b-90 (03).	Titrimetry	I

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Olive Oils and Olive Pomace Oils	Relative density	IUPAC 2.101, with the appropriate conversion factor	Pycnometry	I
Olive Oils and Olive Pomace Oils	Refractive index	ISO 6320:2000 or AOCS Cc 7-25 (02)	Refractometry	II
Olive Oils and Olive Pomace Oils	Saponification value	ISO 3657:2002 or AOCS Cd 3-25 (03)	Titrimetry	I
Olive Oils and Olive Pomace Oils	Sterol composition and total sterols	COI/T.20/Doc. no. 10 or ISO 12228:1999 or AOCS Ch 6-91 (97).	Gas chromatography	II
Olive Oils and Olive Pomace Oils	Stigmastadienes	COI/T.20/Doc. no. 11 or ISO 15788-1:1999 or AOCS Cd 26-96 (03).	Gas chromatography	II
Olive Oils and Olive Pomace Oils	Stigmastadienes	ISO 15788-2: 2003	HPLC	III
Olive Oils and Olive Pomace Oils	*Trans* fatty acids content	COI/T.20/Doc no. 17 or ISO 15304:2002 or AOCS Ce 1f-96 (02)	Gas chromatography of methyl esters	II
Olive Oils and Olive Pomace Oils	Unsaponifiable matter	ISO 3596:2000 or ISO 18609:2000 or AOCS Ca 6b-53 (01)	Gravimetry	I
Olive Oils and Olive Pomace Oils	Wax content	COI/T.20/Doc. no. 18 or AOCS Ch 8-02 (02)	Gas chromatography	II
Margarine	Fat	IUPAC 2.801	Gravimetry	I
Margarine	Milkfat	CAC/RM 15-1969	Titrimetry	I
Margarine	Sodium chloride	AOAC 971.27 (Codex general method)	Potentiometry	II
Margarine	Vitamin A	AOAC 960.45	Spectrophotometry	II
Margarine	Vitamin D	AOAC 936.14	Bioassay	II
Margarine	Vitamin E	IUPAC 2.411	TLC followed by spectrophotometry or GLC	II
Margarine	Water	CAC/RM 17-1969 (described in the Standard)	Gravimetry	I
Minarine	Fat	IUPAC 2.801	Gravimetry	I
Minarine	Milkfat	CAC/RM 15-1969 (described in the Standard)	Titrimetry	I
Minarine	Sodium chloride	AOAC 971.27 (Codex general method)	Potentiometry	II

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Minarine	Vitamin A	AOAC 960.45	Spectrophotometry	II
Minarine	Vitamin D	AOAC 936.14	Bioassay	II
Minarine	Vitamin E	IUPAC 2.411	TLC followed by spectrophotometry or GLC	II
Minarine	Water	CAC/RM 17-1969	Gravimetry	I
Fish and Fishery Products				
Fish and fishery products	Histamine	AOAC 977.13	Fluorimetry	II
Fish and fishery products	Mercury	AOAC 977.15	Flameless atomic absorption spectrophotometry	III
Fish and fishery products: canned products	Drained weight	Described in the Standard	Weighing	I
Fish and fishery products: canned products	Net weight	Described in the Standard	Weighing	I
Boiled Dried Salted Anchovies	Sodium Chloride (chloride expressed as sodium chloride)	AOAC 937.09	Titrimetry	II
Canned shrimps or prawns	Size, determination of	Described in the Standard	Number per 100 g	I
Frozen fish and fishery products	Thawing and cooking procedures	Described in the Standards	Thawing and heating	I
Quick frozen blocks of fish fillet, minced fish flesh and mixtures of fillets and minced fish flesh	Proportion of fish fillet and minced fish	AOAC 988.09	Physical separation	I
Quick frozen blocks of fish fillet, minced fish flesh and mixtures of fillets and minced fish flesh	Net content of frozen fish blocks covered by glaze	Described in the Standard	Gravimetry	I
Quick frozen blocks of fish fillet, minced fish flesh and mixtures of fillets and minced fish flesh	Sodium chloride	AOAC 971.21 (Codex general method)	Potentiometry	II

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Quick frozen fish fillets	Net weight of products covered by glaze	Described in the Standard	Water spraying and sieving	I
Quick Frozen Fish sticks (fish fingers) and fish portions - breaded or in batter	Fish content (declaration)	AOAC 996.15 and calculation (described in the standard)	Gravimetry	I
Quick frozen fish sticks (fish fingers) and fish portions - breaded or in batter	Net weight	Described in the Standard	Weighing	I
Quick Frozen Fish Sticks (fish fingers) and Fish Portions-Breaded and in Batter (except for certain fish species with soft flesh)	Proportion of fish fillet and minced fish	WEFTA Method (described in the Stnadard)	Gravimetry	I
Quick frozen fish sticks (fish fingers) and fish portions - breaded or in batter	Sodium chloride	AOAC 971.27 (Codex general method)	Potentiometry	II
Salted Atlantic Herring and Salted Sprat	Water content	AOAC 950.46B	air drying	I
Salted Fish of the *Gadidae* Family	Salt	WEFTA Method	Titrimetry (Mohr) Salt determined as chloride expressed as sodium chloride	II
Salted Fish and Dried Salted Fish of the *Gadidae* Family of Fishes	Salt Content Water content	Sampling and method described in the Standard	Gravimetry	I
Foods for Special Dietary Uses				
Special foods	Ash	AOAC 942.05	Gravimetry	I
Special foods	Calcium	AOAC 984.27	ICP emission spectrometry	III
Special foods	Calories by calculation	Method described in CAC/VOL IX-Ed.1, Part III	Calculation method	III
Special foods	Carbohydrates	Method described in CAC/VOL IX-Ed.1, Part III	Calculation	III
Special foods	Chloride	AOAC 971.27 (Codex general method)	Potentiometry	II
Special foods	Dietary fibre, total	AOAC 985.29	Gravimetry (enzymatic digestion)	I

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Special foods	Fat	CAC/RM 55-1976	Gravimetry (extraction)	I
Special foods	Fat in foods not containing starch, meat or vegetable products	CAC/RM 1-1973, B-2	Gravimetry	I
Special foods	Fill of containers	CAC/RM 46-1972	Weighing	I
Special foods	Folic acid	AOAC 944.12	Microbioassay	II
Special foods	Linoleate (in the form of glycerides)	AOAC 922.06; 969.33; 963.22	Acid hydrolysis, preparation of methyl esters and gas chromatography	II
Special foods	Linoleate (in the form of glycerides)	AOAC 922.06; 979.19	Acid hydrolysis and spectrophotometry	III
Special foods	Loss on drying	AOAC 934.01 AOAC 925.23	Gravimetry	I
Special foods	Loss on drying (milk based)	AOAC 925.23 IDF Standard 21B:1987 ISO 6731:1989	Gravimetry	I
Special foods	Nicotinamide for foods not based on milk	AOAC 961.14	Colorimetry	II
Special foods	Nicotinamide for milk-based foods	AOAC 944.13	Microbioassay	II
Special foods	Pantothenic acid/enriched foods	AOAC 945.74	Microbioassay	II
Special foods	Pantothenic acid/non-enriched foods	*The Analyst* 89 (1964):1, 3-6, ibid. 232 US Dept Agr., *Agr. Handbook* 97 (1965)	Microbioassay	IV
Special foods	Phosphorous	AOAC 986.24	Colorimetry (molybdovanadate)	II
Special foods	Protein efficiency ratio (PER)	AOAC 960.48	Rat bioassay	I
Special foods	Protein, crude	Method described in CAC/VOL IX-Ed. 1, Part III	Titrimetry, Kjeldahl digestion	I

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Special foods	Riboflavin	AOAC 970.65	Fluorometry	II
Special foods	Sodium and potassium	ISO 8070:1987 (confirmed 1992) IDF Standard 119A:1987	Flame emission spectrophotometry	II
Special foods	Sodium and potassium	AOAC 984.27	ICP emission spectrometry	III
Special foods	Thiamine	AOAC 942.23	Fluorometry	II
Special foods	Vitamin A	AOAC 974.29	Colorimetry	IV
Special foods	Vitamin A in foods in which carotenes have been added as a source of vitamin A	AOAC 941.15	Spectrophotometry	III
Special foods	Vitamin B_{12}	AOAC 952.20	Microbioassay	II
Special foods	Vitamin B_6	AOAC 961.15	Microbioassay	II
Special foods	Vitamin C	AOAC 967.22	Microfluorometry	II
Special foods	Vitamin C	AOAC 967.21	Colorimetry (dichloroindophenol)	III
Special foods	Vitamin D	AOAC 936.14	Rat bioassay	IV
Special foods	Vitamin E	AOAC 971.30	Colorimetry	IV
Foods with low-sodium content (including salt substitutes)	Iodine	AOAC 925.56	Titrimetry	II
Foods with low-sodium content (including salt substitutes)	Silica (colloidal, calcium silicate)	AOAC 950.85N	Gravimetry	IV
Follow-up formula	Dietary fibre, total	AOAC 991.43	Gravimetry (enzymatic digestion)	I
Follow-up formula	Iodine (milk based formula)	AOAC 992.24	Ion-selective potentiometry	II
Follow-up formula	Pantothenic acid	AOAC 992.07	Microbioassay	II
Follow-up formula	Pantothenic acid	*The Analyst* 89 (1964)(1) 3-6, 232 US Dept Agr., *Agr. Handbook* 97 (1965)	Microbioassay	IV
Follow-up formula	Vitamin A	AOAC 974.29	Colorimetry	IV
Follow-up formula	Vitamin A (retinol isomers)	AOAC 992.04	Liquid chromatography	II

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Follow-up formula	Vitamin A (retinol)	AOAC 992.06	Liquid chromatography	II
Follow-up formula	Vitamin K_1	AOAC 992.27	Liquid chromatography	II
Fruit Juices and Nectars				
Fruit Juices and Nectars	Ascorbic acid-L (additives)	IFU Method No 17a (1995)	HPLC	II
Fruit Juices and Nectars	Ascorbic acid-L (additives)	ISO 6557-1: 1986	Fluorescence spectrometry	IV
Fruit Juices and Nectars	Ascorbic acid-L (additives)	AOAC 967.21 IFU Method No 17 ISO 6557-2: 1984	Indophenol method	III
Fruit Juices and Nectars	Carbon dioxide (additives and processing aids)	IFU Method No 42 (1976)	Titrimetry (back-titration after precipitation)	IV
Fruit Juices and Nectars	Cellobiose	IFU Recommendation No.4 October 2000	Capillary gas chromatography	IV
Fruit Juices and Nectars	Citric acid [5](additives)	AOAC 986.13	HPLC	II
Fruit Juices and Nectars	Citric acid [5](additives)	EN 1137: 1994 IFU Method No 22 (1985)	Enzymatic determination	III
Fruit Juices and Nectars	Glucose and fructose (permitted ingredients)	EN 12630 IFU Method No 67 (1996) NMKL 148 (1993)	HPLC	III
Fruit Juices and Nectars	Glucose-D and fructose-D (permitted ingredients)	EN 1140 IFU Method No 55 (1985)	Enzymatic determination	II
Fruit Juices and Nectars	HFCS & HIS in apple juice (permitted ingredients)	Determination of HFCS & HIS by Capillary GC method JAOAC 84, 486 (2001)	CAP GC Method	IV
Fruit Juices and Nectars	Malic acid (additives)	AOAC 993.05	Enzymatic determination and HPLC	III
Fruit Juices and Nectars	Malic acid-D	EN 12138 IFU Method No 64 (1995)	Enzymatic determination	II
Fruit Juices and Nectars	Malic acid-D in apple juice	AOAC 995.06	HPLC	II

[5] All juices except citrus based juices

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Fruit Juices and Nectars	Malic acid-L	EN 1138 (1994) IFU Method No 21 (1985)	Enzymatic determination	II
Fruit Juices and Nectars	Pectin (additives)	IFU Method No 26 (1964/1996)	Precipitation/photometry	I
Fruit Juices and Nectars	Benzoic acid and its salts; sorbic acid and its salts	IFU Method No 63 (1995) NMKL 124 (1997)	HPLC	II
Fruit Juices and Nectars	Benzoic acid and its salts	ISO 5518:1978 ISO 6560: 1983	Spectrometry	III
Fruit Juices and Nectars	Preservatives in fruit juices (sorbic acid and its salts)	ISO 5519: 1978	Spectrometry	III
Fruit Juices and Nectars	Quinic, malic & citric acid in cranberry juice cocktail and apple juice (permitted ingredients and additives)	Determination of quinic, malic and citric acid in cranberry juice cocktail and apple juice AOAC 986.13	HPLC	III
Fruit Juices and Nectars	Saccharin	NMKL 122 (1997)	Liquid chromatography	II
Fruit Juices and Nectars	Soluble solids	AOAC 983.17 EN 12143 (1996) IFU Method No 8 (1991) ISO 2173: 2003	Indirect by refractometry	I
Fruit Juices and Nectars	Sucrose (permitted ingredients)	EN 12146 (1996) IFU Method No 56 (1985/1998)	Enzymatic determination	III
Fruit Juices and Nectars	Sucrose (permitted ingredients)	EN 12630 IFU Method No 67 (1996) NMKL 148 (1993)	HPLC	II
Fruit Juices and Nectars	Sulphur dioxide (additives)	Optimized Monier Williams AOAC 990.28 IFU method No. 7A (2000) NMKL 132 (1989)	Titrimetry after distillation	II
Fruit Juices and Nectars	Sulphur dioxide (additives)	NMKL 135 (1990)	Enzymatic determination	III
Fruit Juices and Nectars	Sulphur dioxide (additives)	ISO 5522:1981 ISO 5523:1981	Titrimetry after distillation	III
Fruit Juices and Nectars	Tartaric acid in grape juice (additives)	EN 12137 (1997) IFU Method No 65 (1995)	HPLC	II

Commodity Standard	*Provision*	*Method*	*Principle*	*Type*
Fruit Juices and Nectars	Total nitrogen	EN 12135 (1997) IFU Method No 28 (1991)	Digestion/titration	I
Fruit Juices and Nectars	Sections 3.2 Quality Criteria and 3.3 Authenticity[6]	Determination of acetic acid EN 12632; IFU Method No 66 (1996)	Enzymatic determination	II
Fruit Juices and Nectars		Determination of alcohol (ethanol) IFU Method No 52 (1996)	Enzymatic determination	II
Fruit Juices and Nectars		Detection of anthocyanins IFU Method No 71 (1998)	HPLC	I
		Determination of ash in fruit products AOAC 940.26 ;EN 1135 (1994); IFU Method No 9 (1989)	Gravimetry	I
		Detection of beet sugar in fruit juices AOAC 995.17	Deuterium NMR	II
		Determination of benzoic acid as a marker in orange juice AOAC 994.11	HPLC	III
		Determination of C^{13}/C^{12} ratio of ethanol derived from fruit juices JAOAC 79, No. 1, 1996, 62-72	Stable isotope mass spectrometry	II
		Determination of carbon stable isotope ratio of apple juice AOAC 981.09 - JAOAC 64, 85 (1981)	Stable isotope mass spectrometry	II
		Determination of carbon stable isotope ratio of orange juice AOAC 982.21	Stable isotope mass spectrometry	II

[6] **3.4 Verification of Composition, Quality and Authenticity**

Fruit juices and nectars should be subject to testing for authenticity, composition, and quality where applicable and where required. The analytical methods used should be those found in Section 9, Methods of Analysis and Sampling.

The verification of a sample's authenticity / quality can be assessed by comparison of data for the sample, generated using appropriate methods included in the standard, with that produced for fruit of the same type and from the same region, allowing for natural variations, seasonal changes and for variations occurring due to processing.

	Determination of carotenoid, total/individual groups EN 12136 (1997); IFU Method No 59 (1991)	Spectrophotometry	I
	Determination of centrifugable pulp EN 12134 (1997) - IFU Method No 60 (1991)	Centrifugation/% value	I
	Determination of chloride (expressed as sodium chloride) EN12133 (1997) IFU Method No 37 (1991)	Electrochemical titrimetry	III
	Determination of chloride in vegetable juice AOAC 971.27 (Codex general method) ISO 3634:1979	Titration	II
	Determination of essential oils (Scott titration AOAC 968.20 - IFU 45b*	(Scott) distillation, titration	I
	Determination of essential oils (in citrus fruit) (volume determination)* ISO 1955:1982	Distillation and direct reading of the volume determination	I
	Determination of fermentability IFU Method No 18 (1974)	Microbiological method	I
	Determination of formol number EN 1133 (1994) IFU Method No 30 (1984)	Potentiometric titration	I
	Determination of free amino acids EN 12742 (xxxx) IFU Method No 57 (1989)	Liquid Chromatography	II
	Determination of fumaric acid IFU Method No 72 (1998)	HPLC	II
	Determination of glucose fructose and saccharose EN 12630 - IFU Method No 67 (1996) NMKL 148 (1993)	HPLC	II
	Determination of gluconic acid IFU Method No 76 (2001)	Enzymatic determination	II

	Determination of glycerol IFU Method No 77 (2001)	Enzymatic determination	II
	Determination of hesperidin and naringin EN 12148 (1996) - IFU Method No 58 (1991)	HPLC	II
	Determination of hydroxymethylfurfural IFU Method No 69 (1996)	HPLC	II
	Determination of hydroxymethylfurfural ISO 7466:1986	Spectrometry	III
	Determination of isocitric acid-D IFU Method No 54 (1984)	Enzymatic determination	II
	Determination of Lactic acid- D and L EN 12631 (1999) IFU Method No 53 (1983/1996)	Enzymatic determination	II
	Determination of L-malic/total malic acid ratio in apple juice AOAC 993.05	Enzymatic determination and HPLC	II
	Determination of naringin and neohesperidin in orange juice AOAC 999.05	HPLC	III
	Determination of pH-value NMKL 179:2005 EN 1132 (1994);IFU Method No 11 (1989);ISO 1842: 1991	Potentiometry	II IV
	Determination of phosphorus/phosphate EN 1136 (1994) IFU Method No 50 (1983)	Photometric determination	II
	Determination of proline by photometry – non-specific determination EN 1141 (1994); IFU Method No 49 (1983)	Photometry	I
	Determination of relative density EN 1131 (1993); IFU Method No 1 (1989) & IFU Method No General sheet (1971)	Pycnometry	II
	Determination of Relative density IFU Method No 1A	Densitometry	III

	Determination of sodium, potassium, calcium, magnesium in fruit juices EN 1134 (1994); IFU Method No 33 (1984)	Atomic Absorption Spectroscopy	II
	Determination of sorbitol-D IFU Method No 62 (1995)	Enzymatic determination	II
	Determination of stable carbon isotope ratio in the pulp of fruit juices ENV 13070 (1998) Analytica Chimica Acta 340 (1997)	Stable isotope mass spectrometry	II
	Determination of stable carbon isotope ratio of sugars from fruit juices ENV 12140 Analytica Chimica Acta.271 (1993)	Stable isotope mass spectrometry	II
	Determination of stable hydrogen isotope ratio of water from fruit juices ENV 12142 (1997)	Stable isotope mass spectrometry	II
	Determination of stable oxygen isotope ratio in fruit juice water ENV 12141(1997)	Stable isotope mass spectrometry	II
	Detection of starch AOAC 925.38 (1925) IFU Method No 73 (2000)	Colorimetric	I
	Determination of sugar beet derived syrups in frozen concentrated orange juice $\delta^{18}O$ Measurements in Water AOAC 992.09	Oxygen isotope ratio analysis	I
	Determination of titrable acids, total EN 12147 (1995) IFU Method No Method No 3, (1968) ISO 750:1998	Titrimetry	I
	Determination of total dry matter (vacuum-oven drying at 70°C)* EN 12145 (1996) IFU Method No 61 (1991)	Gravimetric determination	I
	Determination of total solids (Microwave oven drying)* AOAC 985.26	Gravimetric determination	I

	Determination of Vitamin C (dehydro-ascorbic acid and ascorbic acid) AOAC 967.22	Microfluorometry	III
	Determination of Vitamin C EN 14130 : 2004	HPLC	II

* *Because there is no numerical value in the Standard duplicate Type I methods have been included which may lead to different results.*

Milk and Milk Products				
Milk products	Iron	NMKL 139 (1991) (Codex general method)	Atomic absorption spectrophotometry	II
Milk products	Iron	IDF Standard 103A:1986 ISO 6732:1985	Photometry (bathophenanthroline)	IV
Milk products (products not completely soluble in ammonia)	Milkfat	IDF 124-3 | ISO 8262-3:2005	Gravimetry (Weibull-Berntrop)	I
Blend of evaporated skimmed milk and vegetable fat	Total fat	IDF 13C:1987 | ISO 1737:1999	Gravimetry (Röse-Gottlieb)	IV
Blend of evaporated skimmed milk and vegetable fat	Milk solids-not-fat* (MSNF)	IDF 21B:1987 | ISO 6731:1989 IDF 13C:1987 | ISO 1737:1999	Calculation from total solids content and fat content Gravimetry (Röse-Gottlieb)	IV
Blend of evaporated skimmed milk and vegetable fat	Milk protein in MSNF*	IDF 20-part 1 or 2:2001 | ISO 8968-part 1 or 2:2001	Titrimetry (Kjeldahl)	IV
Reduced fat blend of evaporated skimmed milk and vegetable fat	Total fat	IDF 13C:1987 | ISO 1737: 1999	Gravimetry (Röse-Gottlieb)	IV
Reduced fat blend of evaporated skimmed milk and vegetable fat	MSNF *	IDF 21B:1987 | ISO 6731:1989 IDF 13C:1987 | ISO1737:1999	Calculation from total solids and fat contents	IV

* Milk total solids and Milk solids-not-fat content include water of crystallization of lactose

Reduced fat blend of Evaporated skimmed milk and vegetable fat	Milk protein in MSNF*	IDF 20-1 or 2:2001 | ISO 8968-1 or 2:2001	Titrimetry (Kjeldahl)	IV
Blend of skimmed milk and vegetable fat in powdered form	Total fat	IDF 9C:1987 | ISO1736:2000	Gravimetry (Röse-Gottlieb)	IV
Blend of skimmed milk and vegetable fat in powdered form	Water**	IDF 26:2004 | ISO 5537:2004	Gravimetry, drying at 87°C	IV
Blend of skimmed milk and vegetable fat in powdered form	Milk protein in MSNF*	IDF 20-part 1 or part 2:2001 | ISO 8968-part 1 or part 2:2001	Titrimetry (Kjeldahl)	IV
Reduced fat blend of skimmed milk powder and vegetable fat in powdered form	Total fat	IDF 9C:1987 | ISO 1736:2000	Gravimetry (Röse-Gottlieb)	IV
Reduced fat blend of skimmed milk powder and vegetable fat in powdered form	Water**	IDF 26:2004 | ISO 5537:2004	Gravimetry, drying at 87°C	IV
Reduced fat blend of skimmed milk powder and vegetable fat in powdered form	Milk protein in MSNF*	IDF 20-part 1 or part 2:2001 | ISO 8968-part 1 or part 2:2001	Titrimetry (Kjeldahl)	IV
Blend of sweetened condensed skimmed milk and vegetable fat	Total fat	IDF 13C:1987 | ISO 1737:1999	Gravimetry (Röse-Gottlieb)	IV
Blend of sweetened condensed skimmed milk and vegetable fat	Milk solids-not-fat* (MSNF)	IDF 15B:1991 | ISO 6734:1989 IDF 13C:1987 | ISO 1737:1999	Calculation from total solids content and fat content Gravimetry (Röse-Gottlieb)	IV

* Milk total solids and Milk solids-not-fat content including water of crystallization of lactose
** Water content excluding the crystallized water bound to lactose (in fact to read moisture content)

*Milk total solids and Milk solids-not-fat content include water of crystallization of lactose

Blend of sweetened condensed skimmed milk and vegetable fat	Milk protein in MSNF*	IDF 20-part1 or part 2:2001 | ISO 8968-part 1 or part 2:2001	Titrimetry (Kjeldahl)	IV
Reduced fat blend of sweetened condensed skimmed milk and vegetable fat	Total fat <= 8% m/m >= 1%m/m	IDF 13C:1987 | ISO 1737: 1999	Gravimetry (Röse-Gottlieb)	IV
Reduced fat blend of sweetened condensed skimmed milk and vegetable fat	MSNF * >= 20% m/m	IDF 15B:1991 | ISO 6734:1989 IDF 13:1987 | ISO1737:1999	Calculation from total solids and fat contents	IV
Reduced fat blend of sweetened condensed skimmed milk and vegetable fat	Milk protein in MSNF*	IDF 20-part 1 or part 2:2001 | ISO 8968-part 1 or part 2:2001	Titrimetry (Kjeldahl)	IV
Butter	Copper	IDF Standard 76A:1980/ISO 5738:1980/AOAC 960.40	Photometry, diethyldithiocarbamate	II
Butter	Lead	AOAC 972.25 (Codex general method)	Atomic absorption spectrophotometry	II
Butter	Milk solids-not-fat	IDF 80-2 | ISO 3727-2:2001	Gravimetry	I
Butter	Milkfat	IDF 80-3 | ISO 3727-3:2003	Gravimetry	I
Butter	Salt	IDF 12 | ISO 1738:2004	Titrimetry (Mohr: determination of chloride, expressed as sodium chloride)	II
Butter	Salt	IDF 179 | ISO 15648:2004	Potentiometry (determination of chloride, expressed as sodium chloride)	III
Butter	Vegetable fat	ISO 17670 / IDF 202	Gas liquid chromatography	II
Butter	Vegetable fat	IDF Standard 32:1965 ISO 3595:1976 (confirmed 1996) AOAC 955.34A	Phytosteryl acetate test	III
Butter	Water	IDF 80 | ISO 37271:2001	Gravimetry	I
Cheese	Citric acid	IDF RM 34 | ISO TS 2963:2006	Enzymatic method	II

Cheese	Citric acid	ISO 2963:1997 AOAC 976.15	Photometry	III
Cheese	Milkfat	IDF 5 | ISO 1735:2004	Gravimetry (Schmid-Bondzynski-Ratslaff)	I
Cheese	Moisture	IDF Standard 4A:1982 ISO 5534:1985	Gravimetry, drying at 102 °C	I
Cheese (and cheese rind)	Natamycin	IDF Standard 140A:1992 ISO 9223:1991	Molecular absorption spectrophotometry & HPLC after extraction	II
Cheeses, individual	Milkfat in dry matter	IDF 5:2004 | ISO 1735:2004	Gravimetry after solvent extraction	I
Cheeses, individual	Dry matter (Total solids)	ISO 5534/IDF 4: 2004	Gravimetry, drying at 102°C	I
Cheeses in brine	Milkfat in dry matter (FDM)	IDF 5 | ISO 1735:2004	Gravimetry (Schmid-Bondzynski-Ratslaff)	I
Cottage cheese	Fat-free dry matter	IDF 4:2004 | ISO 5534:2004	Gravimetry, drying at 102°C Calculation from dry matter and fat contents	IV
Cottage cheese	Milkfat	IDF 5:2004 | ISO 1735:2004 IDF 124-3:2005 | ISO 8262-3:2005	Gravimetry (Schmid-Bondzinski-Ratzlaff) Gravimetry (Weibull-Berntrop)	IV
Cottage cheese	Milk fat in dry matter	IDF 126A:1988 ISO 8262-3:1987	Gravimetry (Weibull-Berntrop)	I
Cheese, Unripened Including Fresh Cheese	Protein	IDF Standard 20B:1993 AOAC 991.20-23 ISO 8968 Part I	Titrimetry, Kjeldahl	I
Cream and Prepared Creams	Milk protein	ISO 8968-1 /IDF20-1:2001 AOAC 991.20	Titrimetry (Kjeldahl)	I
Cream	Milkfat	IDF Standard 16C:1987 ISO 2450:1999	Gravimetry (Röse-Gottlieb)	I

Cream	Solids	IDF Standard 21B:1987 ISO 6731:1989	Gravimetry (drying at 102°C)	I
Creams Lowered in Milkfat Content	Milkfat	IDF Standard 16C:1987 ISO 2450:1999 AOAC 995.19	Gravimetry	I
Creams, Whipped Creams and Fermented Creams	Milk solids-not-fat	IDF Standard 80:1977 ISO 3727:1977 AOAC 920.116	Gravimetry	I
Cream cheese	Dry matter	IDF 4:2004 | ISO 5534:2004	Gravimetry drying at 102°C	IV
Cream cheese	Moisture on fat free basis	IDF 4:2004 | ISO 5534:2004 and IDF 5:2004 | ISO 1735:2004	Calculation from fat content and moisture content	IV
Dairy fat spreads	Total fat	IDF 194:2003 | ISO 17189:2003	Gravimetry Direct determination of fat using solvent extraction	I
Dairy fat spreads	Vegetable fat	IDF 54:1970 | ISO 3594: 1976 IDF 32:1965 | ISO 3595:1976	Gas liquid chromatography Phytosterol acetate test	II III
Edible casein products	Acids, free	IDF Standard 91:1979 ISO 5547:1978	Titrimetry (aqueous extract)	IV
Edible casein products	Ash (including P_2O_5)	IDF Standard 90:1979) ISO 5545:1978	Furnace, 825°C	IV
Edible Casein Products	Casein in protein	IDF Standard 29:1964	Titrimetry, Kjeldahl	I
Edible casein products	Copper	AOAC 985.35	Atomic absorption spectrophotometry	II
Edible casein products	Copper	IDF 76 | ISO 5738:2004	Colorimetry (diethyldiethiocarbamate)	III
Edible casein products	Lactose	IDF 106 | ISO 5548:2004	Photometry (phenol and H_2SO_4)	IV
Edible casein products	Lead	AOAC 972.25 (Codex general method)	Atomic absorption spectrophotometry	II

Edible casein products	Lead	AOAC 982.23 (Codex general method)	Anodic stripping voltanmetry	III
Edible casein products	Lead	IDF RM 133 | ISO TS 6733: 2006	Spectrophotometry (1,5-diphenylthiocarbazone)	III
Edible casein products	Lead	NMKL 139 (1991) (Codex general method)	Atomic absorption spectrophotometry	III
Edible casein products	Milkfat	ISO 5543 | IDF 127: 2004	Gravimetry (Schmid-Bondzynski-Ratslaff)	I
Edible casein products	Moisture	IDF 78 | ISO 5550:2006	Gravimetry (drying at 102°C)	I
Edible casein products	pH	IDF Standard 115A:1989 ISO 5546:1979	Electrometry	IV
Edible casein products	Protein (total N x 6.38 in dry matter)	IDF Standard 92:1979 ISO 5549:1978	Titrimetry, Kjeldahl digestion	IV
Edible casein products	Sediment (scorched particles)	IDF 107 | ISO 5739:2003	Visual comparison with standard disks, after filtration	IV
Emmental	Calcium >= 800mg/100g	ISO 8070 | IDF 119[7]	Flame atomic absorption	IV
Evaporated milks	Milkfat	IDF Standard 13C: 1987 ISO 1737:1999	Gravimetry (Röse-Gottlieb)	I
Evaporated Milks	Protein	AOAC 945.48H AOAC 991.20 – IDF 20B:1993	Kjeldahl, titrimetry	I
Evaporated milks	Solids, total	IDF Standard 21B:1987 ISO 6731:1989	Gravimetry (drying at 102°C)	I
Fermented milks	Protein	ISO 8968-1 | IDF 20-1:2001 AOAC 991.20	Titrimetry (Kjeldahl)	I
Fermented milks	Milk fat	ISO 1211:1999 IDF 1D:1996 AOAC 905.02	Gravimetry	I
Fermented milks	Lactic acid (total acidity expressed as lactic acid)	IDF 150:1991 ISO 11869:1997	Potentiometry, titration to pH 8.30	I

[7] *Draft international standard*

	Microorganisms constituting the starter culture	IDF 149A:1997 (Annex A)	Colony count at 25°C, 30°C, 37°C and 45°C according to the starter organism in question	IV
Milk powders and cream powders	Milkfat	IDF Standard 9C: 1987 ISO 1736:2000	Gravimetry (Röse-Gottlieb)	I
Milk powders and cream powders	Protein (in milk solids-not-fat)	IDF 20-1 | ISO 8968-1:2001	Titrimetry, Kjeldahl digestion	I
Milk powders and cream powders	Scorched particles	IDF 107 | ISO 5739:2003	Visual comparison with standard disks, after filtration	IV
Milk powders and cream powders	Solubility	IDF 129 | ISO 8156:2005	Centrifugation	I
Milk powders and cream powders	Acidity, titratable	IDF Standard 86:1981 ISO 6091:1980	Titrimetry, titration to pH 8.4	I
Milk powders and cream powders	Water	IDF 26 | ISO 5537:2004[8]	Gravimetry (drying at 102°C)	IV
Milkfat products	Antioxidants (phenolic)	IDF Standard 165:1993	Reversed phase gradient liquid chromatography	II
Milkfat Products	Copper	IDF Standard 76A:1980/ISO 5738:1980/AOAC 960.40	Photometry, diethyldithiocarbamate	II
Milkfat products	Fatty acids, free (expressed as oleic acid)	IDF 6 | ISO 1740:2004	Titrimetry	I
Milkfat products	Milkfat	IDF Standard 24:1964	Gravimetry (calculation from solids-not-fat and water content)	IV
Milkfat Products	Peroxide value (expressed as meq. of oxygen/kg fat)	AOAC 965.33	Titrimetry	I
Milkfat products	Vegetable fat (sterols)	IDF Standard 54:1979 ISO 3594:1976	Gas liquid chromatography	II
Milkfat products	Vegetable fat	IDF Standard 32:1965 ISO 3595:1976	Phytosteryl acetate test	III
Milkfat products	Water	IDF 23 | ISO 5536:2002	Titrimetry (Karl Fischer)	II
Milkfat products (anhydrous milkfat)	Peroxide value	AOAC 965.33	Titrimetry	I

[8] The replacing method has only been validated for milk powders, not for creams

Milk Products obtained from Fermented Milks Heat-Treated after Fermentation	Protein	IDF Standard 20B:1993 ISO 8968 Part I AOAC 991.20-23	Titrimetry (Kjeldahl)	I
Mozzarella	Milkfat in dry matter – with high moisture	IDF 5:2004 | ISO 1735:2004	Gravimetry after solvent extraction	IV
Mozzarella	Milkfat in dry matter – with low moisture	IDF 5:2004 | ISO 1735:2004	Gravimetry after solvent extraction	IV
Processed cheese products	Citric acid	IDF RM 34 | ISO TS 2963:2006	Enzymatic method	II
Processed cheese products	Citric acid	AOAC 976.15	Photometry	III
Processed cheese products	Milkfat	IDF 5 | ISO 1735:2004	Gravimetry (Schmid- Bondzynski-Ratzlaff)	I
Processed cheese products	Phosphate, added (expressed as phosphorus)	IDF Standard 51B:1991	Calculation	IV
Processed cheese products	Phosphorus	IDF Standard 33C: 1987 ISO 2962:1984	Spectrophotometry (molybdate-ascorbic acid)	II
Processed cheese products	Salt	IDF 88 | ISO 5943:2004	Potentionmetry (determination of chloride, expressed as sodium chloride)	II
Sweetened condensed milk	Milkfat	IDF Standard 13C: 1987 ISO 1737:1999	Gravimetry (Röse-Gottlieb)	I
Sweetened and Condensed Milks	Protein	AOAC 945.48H AOAC 991.20 – IDF 20B:1993	Kjeldahl, titrimetry	I
Sweetened Condensed Milks	Solids	IDF Standard 15B:1991 ISO 6734:1989	Gravimetry, drying at 102 °C	I
Whey Cheese	Dry matter (for denomination)	IDF 58 | ISO 2920:2004	Gravimetry, drying at 88 °C	I
Whey cheeses by concentration	Dry matter (total solids)	IDF 58 | ISO 2920:2004	Gravimetry, drying at 88 °C	I
Whey cheeses by coagulation	Dry matter (total solids)	IDF 4:2004 ISO 5534:2004	Gravimetry, Drying at 102°C	IV

Whey cheese	Fat on the dry basis	IDF 59 A:1986 | ISO 1854:1999 and IDF 58:2004 | ISO 2920:2004	Calculation from fat content and dry matter content	I
Whey cheese	Milkfat (in dry matter)	IDF Standard 59A:1986 ISO 1854:1999	Gravimetry (Röse-Gottlieb)	I
Whey cheeses including Whey cheeses by concentration	Total fat	IDF 59A:1986 ISO 1854:1999	Gravimetry (Röse Gottlieb)	I
Whey cheeses by coagulation	Total fat	IDF 5:2004 | ISO 1735:2004	Gravimetry (Schmid-Bondzynski-Ratzlaff	I
Creamed whey cheese	Fat on the dry basis	IDF 59 A: 1986 | ISO 1854: 1999 and IDF 58:2004 | ISO 2920:2004	Calculation from fat content and dry matter content	I
Skimmed whey cheese	Fat on the dry basis	IDF 59 A:1986 | ISO 1854:1999 and IDF 58:2004 | ISO 2920:2004	Calculation from fat content and dry matter content	I
Whey powders	Ash	IDF Standard 90:1979 ISO 5545:1978	Furnace, 825°C	IV
Whey powders	Copper	AOAC 985.35	Atomic absorption spectrophotometry	II
Whey powders	Copper	IDF 76 | ISO 5738:2004	Photometry (diethyldiethiocarbamate)	III
Whey Powders	Lactose	IDF 79B:1991	Enzymatic method: glucose moiety (method A), galactose moiety (method B)	II
Whey powders	Lead	AOAC 972.25 (Codex general method)	Atomic absorption spectrophotometry	II
Whey powders	Milkfat	IDF Standard 9C:1987 ISO 1736:2000	Gravimetry (Röse-Gottlieb)	I

Whey powders	Milk protein	ISO 8968-1 | IDF 20-1:2001 AOAC 991.20	Titrimetry (modified Kjeldahl)	I
Whey powders	Moisture, "Free"	IDF 58 | ISO 2920:2004	Gravimetry (drying at 88±2°C)	IV
Whey powders	Protein (total N x 6.38)	IDF Standard 92:1979 ISO 5549:1978	Titrimetry, Kjeldahl digestion	IV
Whey powders	Water (not including water of crystallization of lactose)	IDF 26A:1993 AOAC 927.05	Gravimetry	I
Yoghurt products	*Lactobacillus bulgaricus & Streptococcus thermophilus*	IDF 117 | ISO 7889:2003	Colony count at 37°C	
Yoghurt products	*Lactobacillus bulgaricus & Streptococcus thermophilus*	IDF 146 | ISO 9232:2003	Test for identification	
Yoghurt products	Solids, Total	IDF 151 | ISO 13580:2005	Gravimetry (drying at 102°C)	I
Yoghurt	*Streptococcus thermophilus & Lactobacillus delbrueckii* subsp. *Bulgaricus* >= 10^7 cfu/g	ISO 7889/IDF 117: 2003	Colony count at 37°C	I
Yoghurt	*Streptococcus thermophilus & Lactobacillus delbrueckii* subsp. *bulgaricus* >= 10^7 cfu/g	ISO 9232/IDF 146:2003	Test for identification: morphological , cultural and biochemical characteristics	I
Natural Mineral Waters				
Natural mineral waters	Arsenic	AOAC 986.15 (Codex general method)	Atomic absorption spectrophotometry	II
Natural mineral waters	Arsenic	ISO 6595:1982 (confirmed 1995)	Spectrophotometry	IV
Natural mineral waters	Barium	*Examination of Water Pollution Control* WHO Pergamon Press (1982) Vol. 2, pp. 65-66		IV
Natural mineral waters	Barium	*Examination of Water Pollution Control.* WHO Pergamon Press (1982) Vol. 2, pp. 67-68		IV
Natural mineral waters	Borate	ISO 9390:1990	Spectrophotometry	II

Natural mineral waters	Cadmium	ISO 8288:1986 (confirmed 1995)	Flame atomic absorption spectrophotometry	II
Natural mineral waters	Cadmium	AOAC 974.27	Atomic absorption spectrophotometry	III
Natural mineral waters	Cadmium	AOAC 986.15 (Codex general method)	Anodic stripping voltammetry	III
Natural mineral waters	Calcium	ISO 6058:1984	Titrimetry	II
Natural mineral waters	Calcium	ISO 7980:1986 (confirmed 1995)	Atomic absorption spectrophotometry	III
Natural mineral waters	Chloride	*Examination of Water Pollution Control.* WHO Pergamon Press (1982) Vol. 2, pp. 205-208		II
Natural mineral waters	Chloride	AOAC 973.51	Titrimetry (Mercuric nitrate)	III
Natural mineral waters	Chloride	ISO 9297:1989 (confirmed 1994)	Titrimetry	III
Natural mineral waters	Chromium (VI)	*Examination of Water Pollution Control.* WHO Pergamon Pres (1982) Vol. 2, pp. 86-87		IV
Natural mineral waters	Coliform organism, thermotolerant organism and presumptive *Escherichia coli*	ISO 9308-1:1990	Membrane filtration	I
Natural mineral waters	Copper	ISO 8288:1986 (confirmed 1995)	Flame atomic absorption spectrophotometry	II
Natural mineral waters	Copper	AOAC 960.40 (Codex general method)	Colorimetry	III
Natural mineral waters	Faecal Streptococci	ISO 7899-2:1984	Membrane filtration	I
Natural mineral waters	Fluoride	*Examination of Water Pollution Control.* WHO Pergamon Press (1982) Vol. 2, pp. 245-247		II
Natural mineral waters	Fluoride	*Examination of Water Pollution Control.* WHO Pergamon Press (1982) Vol.2, pp. 247-250		III

Natural mineral waters	Iron, dissolved	ISO 6332:1988 (confirmed 1995)	Spectrophotometry	II
Natural mineral waters	Lead	ISO 8288:1986 (confirmed 1995)	Flame atomic absorption spectrophotometry	II
Natural mineral waters	Lead	AOAC 974.27	Atomic absorption spectrophotometry	III
Natural mineral waters	Magnesium	ISO 6059:1984 (confirmed 1995)	Titrimetry	II
Natural mineral waters	Magnesium	ISO 7980:1986 (confirmed 1995)	Atomic absorption spectrophotometry	III
Natural mineral waters	Manganese	*Examination of Water Pollution Control.* WHO Pergamon Press (1982) Vol. 2, pp. 121-122		II
Natural mineral waters	Manganese	ISO 6333:1986 (confirmed 1995)	Spectrophotometry	III
Natural mineral waters	Mercury	ISO 5666-3:1984 (confirmed 1995)	Flameless atomic absorption spectrophotometry	II
Natural mineral waters	Mercury	AOAC 977.22	Flameless atomic absorption spectrophotometry	III
Natural mineral waters	Nitrates	ISO 7890-2:1986 (confirmed 1995)	Spectrophotometry	II
Natural mineral waters	Nitrates	*Examination of Water Pollution Control.* WHO Pergamon Press (1982) Vol.2, pp. 280-283		IV
Natural mineral waters	Nitrates	*Handbuch Lebensmittel Chemie* (1969)		IV
Natural mineral waters	Nitrites	ISO 6777:1984	Molecular absorption spectrophotometry	IV
Natural mineral waters	Phenols	ISO 6439:1990 (confirmed 1995)	Spectrophotometry	I
Natural mineral waters	Potassium	*Examination of Water Pollution Control.* WHO Pergamon Press (1982) Vol.2, pp. 142-145		II
Natural mineral waters	Selenium	AOAC 986.15	Atomic absorption spectrophotometry	II

Natural mineral waters	Selenium	*Examination of Water Pollution Control.* WHO Pergamon Press (1982) Vol.2, pp.320-322		III
Natural mineral waters	Sodium	*Examination of Water Pollution Control.* WHO Pergamon Press (1982) Vol.2 pp. 148-151		II
Natural mineral waters	Sodium	*Examination of Water Pollution Control.* WHO Pergamon Press (1982) Vol.2, pp. 151-152		III
Natural mineral waters	Spores of sulphite-reducing anaerobes (Clostridia)	ISO 6461-2:1986 (confirmed 1996)	Membrane filtration	I
Natural mineral waters	Sulphates	ISO 9280:1990 (confirmed 1995)	Gravimetry	III
Natural mineral waters	Sulphide	*Handb. Spurenanal.* 1974		IV
Natural mineral waters	Surface active agents	ISO 7875-1:1996	Spectrophotometry (methylene blue)	I
Processed Fruits and Vegetables				
Processed fruits and vegetables	Benzoic acid	NMKL 124 (1997)	Liquid Chromatography	II
Processed fruits and vegetables	Benzoic acid	NMKL 103 (1984); or AOAC 983.16	Gas Chromatography	III
Processed fruits and vegetables	Calcium	AOAC 968.31	Complexometry/ Titrimetry	II
Processed fruits and vegetables	Drained Weight	AOAC 968.30 (Codex General Method for processed fruits and vegetables)	Sieving Gravimetry	I
Processed fruits and vegetables	Fill of containers	CAC/RM 46-1972 (reference to "metal containers" deleted and refer to ISO 90.1:1986 for determination of water capacity in metal containers)	Weighing	I
Processed fruits and vegetables	Lead	AOAC 972.25 (Codex general method)	AAS (Flame absorption)	III
Processed fruits and vegetables	Packing medium Canned berry fruits (raspberry, strawberry)	AOAC 932.12 ISO 2173:1978	Refractometry	I

Processed fruits and Vegetables (except canned bamboo shoots, pH determined by AOAC 981.12)	pH	ISO 1842:1991	Potentiometry	IV
Processed fruits and vegetables	pH	AOAC 981.12	Potentiometry	III
Processed fruits and vegetables	pH	NMKL 179:2005	Potentiometry	II
Processed fruits and vegetables	Soluble solids	ISO 2173:2003 AOAC 932.12	Refractometry	I
Processed fruits and vegetables	Sorbates	NMKL 103 (1984) / AOAC 983.16	Gas Chromatography	III
Processed fruits and vegetables	Sorbates	NMKL 124 (1997)	Liquid Chromatography	II
Processed fruits and vegetables	Tin	AOAC 980.19 (Codex general method)	AAS	II
Processed fruits and vegetables	Total solids	AOAC 920.151	Gravimetry	I
Canned green beans and wax beans	Tough strings	CAC/RM 39-1970	Stretching	I
Canned green peas	Proper fill (in lieu of drained weight)	CAC/RM 45-1972	Pouring and measuring	I
Canned green peas	Solids, alcohol insoluble	AOAC 938.10	Gravimetry including sieving	I
Canned green peas	Types of peas, distinguishing	CAC/RM 48-1972	Visual inspection	I
Canned mangoes	Syrup	AOAC 932.14C	Brix spindle method	I
Canned mature processed peas	Solids, total	AOAC 964.22	Gravimetry (vacuum oven)	I
Canned mushrooms	Washed drained weight	CAC/RM 44-1972	Sieving	I
Canned palmito	Mineral impurities	ISO 762:1982 (confirmed 1992)	Gravimetry	I
Canned Stone Fruits	Drained weight	AOAC 968.30 ISO:2173:1978	Gravimetry	I
Canned Stone Fruits	Soluble solids	AOAC 932.14C	Refractometry	
Canned strawberries	Calcium	AOAC 968.31	Complexometric titrimetry	II
Canned strawberries	Mineral impurities	AOAC 971.33	Gravimetry	I

Certain canned citrus fruits	Calcium	NMKL 153:1996	Atomic Absorption Spectrophotometry	II
Certain canned citrus fruits	Calcium	AOAC 968.31	Complexometry Titrimetry	III
Citrus marmalade	Calcium	AOAC 968.31	Complexometric titrimetry	II
Dates	Identification of defects	Described in the Standard	Visual inspection	I
Dates	Moisture	AOAC 934.06	Gravimetry (vacuum oven)	I
Dried apricots	Identification of defects	Described in the Standard	Visual inspection (weighing)	I
Dried apricots	Moisture	AOAC 934.06	Gravimetry (vacuum oven)	I
Dried apricots	Sulphur dioxide	AOAC 963.20	Colorimetry	II
Grated desiccated coconut	Acidity, total (in extracted oil)	Described in the Standard	Titration of extracted oil	IV
Grated desiccated coconut	Ash	AOAC 950.49	Gravimetry	I
Grated desiccated coconut	Extraneous vegetable matter	Described in the Standard	Counting extraneous material with the naked eye	IV
Grated desiccated coconut	Moisture	AOAC 925.40	Gravimery (loss on drying)	I
Grated desiccated coconut	Oil content	AOAC 948.22	Gravimetry	I
Jams (fruit preserves) and jellies	Calcium	AOAC 968.31	Complexometric titrimetry	II
Jams (fruit preserves) and jellies	Mineral impurities	AOAC 971.33	Gravimetry	I
Mango chutney	Ash insoluble in HCl	ISO 763:1982	Gravimetry	I
Pickled cucumbers	Acidity, total	AOAC 942.15	Titrimetry	I
Pickled cucumbers	Drained weight	AOAC 968.30	Gravimetry	I
Pickled cucumbers	Mineral impurities	AOAC 971.33	Gravimetry	I
Pickled cucumbers	Salt in brine	AOAC 971.27 (Codex general method)	Potentiometry	II
Pickled cucumbers	Volume fill by displacement	Described in the Standard	Displacement	I
Preserved tomatoes	Calcium	AOAC 968.31	Complexometric titrimetry	III
Preserved tomatoes	Calcium	NMKL 153:1996	Atomic Absorption Spectrophotometry	II
Preserved tomatoes	Mould count	AOAC 965.41	Howard mould count	I

Processed tomato concentrates	Lactic acid	EN 2631:1999	Enzymatic determination	II
Processed tomato concentrates	Mineral impurities (sand)	AOAC 971.33	Gravimetry	IV
Processed tomato concentrates	Mould count	AOAC 965.41	Howard mould count	I
Processed tomato concentrates	Natural tomato soluble solids	AOAC 970.59	Refractometry	I
Processed tomato concentrates	Sodium chloride	AOAC 971.27 (Codex general method)	Potentiometry	II
Processed tomato concentrates	Tomato soluble solids	AOAC 970.59	Refractometry	I
Raisins	Mineral impurities	CAC/RM 51-1974	Ashing	I
Raisins	Mineral oil	CAC/RM 52-1974	Extraction and separation on alumina	II
Raisins	Moisture	AOAC 972.20	Electrical conductance	I
Raisins	Sorbitol	AOAC 973.28	Gas chromatography	II
Raisins	Sulphur dioxide	AOAC 963.20	Colorimetry	II
Table olives	Acidity of brine	Described in the Standard	Titrimetry	IV
Table olives	pH of brine	Described in the Standard	Potentiometry	IV
Table olives	Salt in brine	AOAC 971.27 (Codex general method)	Potentiometry	II
Unshelled pistachio nuts	Identification of defects	Described in the Standard	Visual inspection	I
Unshelled pistachio nuts	Moisture	AOAC 925.40	Gravimetry (loss on drying)	I
Unshelled pistachio nuts	Size classification	Described in the Standard	Number per 500 g	I
Quick Frozen Fruits and Vegetables				
Quick frozen fruits and vegetables	Net weight	CAC/RM 34-1970	Weighing	I
Quick frozen fruits and vegetables	Thawing procedure	CAC/RM 32-1970	Thawing	I
Quick frozen fruits and vegetables: Berries, leek and carrot	Mineral impurities	CAC/RM 54-1974	Flotation and sedimentation	I
Quick frozen fruits and vegetables: Berries, Whole kernel corn and Corn-on-the-cob	Soluble solids, total	CAC/RM 43-1971	Refractometry	I

Quick frozen fruits and vegetables: Peaches and berries	Drained fruit/drained berries	Described in the Standards	Draining	I
Quick frozen fruits and vegetables: Vegetables	Cooking procedure	CAC/RM 33-1970	Cooking	I
Quick frozen French fried potatoes	Moisture	AOAC 984.25	Gravimetry (convection oven)	I
Quick frozen green and wax beans	Tough strings	CAC/RM 39-1970	Stretching	I
Quick frozen peas	Solids, alcohol insoluble	CAC/RM 35-1970	Gravimetry	I
Quick frozen spinach	Dry matter, Salt-free	Described in the Standard	Weighing	I
Processed Meat and Poultry Products and Soups and Broths				
Meat Products	Nitrates and/or Nitrites	ENV 12014-3:1998-06 - Part 3	Spectrometric determination of nitrate and nitrite content of meat products after enzymatic reduction of nitrate to nitrite	III
Meat Products	Nitrates and/or Nitrites	ENV 12014-4:1998-06 - Part 4 NMKL 165 (2000)	Ion-exchange chromatographic method	III
Processed meat and poultry products	Fat	ISO 1443-1973	Gravimetry	I
Processed meat and poultry products	Lead	AOAC 934.07	Colorimetry (dithizone)	II
Processed meat and poultry products	Nitrates	ISO 3091:1975 (confirmed 1996)	Colorimetry (cadmium reduction)	II
Processed meat and poultry products	Nitrites	ISO 2918:1975 (confirmed 1996)	Colorimetry	IV
Processed meat and poultry products	Tin	AOAC 985.16 (Codex general method)	Atomic absorption spectrophotometry	II
Processed meat and poultry products	Nitrogen/protein	ISO 937:1978 (confirmed 1995)	Titrimetry	II
Bouillons and Consommés (soups and broths)	Amino nitrogen	AIIBP Method No 2/7	Volumetry (modified Van Slyke)	II
Bouillons and Consommés (soups and broths	Creatinine	AIIBP Method No 2/5	HPLC	II
Bouillons and Consommés (soups and broths	Nitrogen, total	AOAC 928.08	Kjeldahl	II

Bouillons and Consommés (soups and broths)	Sodium chloride	AIBP Method No 2/4	Potentiometric titration (chloride expressed as sodium chloride)	II
Canned corned beef	Lead	AOAC 972.25 (Codex general method)	Atomic absorption spectrophotometry	II
Canned corned beef	Nitrites, potassium and/or sodium salt	AOAC 973.31 (Codex general method)	Colorimetry	II
Canned corned beef	Nitrites, potassium and/or sodium salt	ISO 2918:1975 (confirmed 1996)	Colorimetry	IV
Canned corned beef	Tin (Products in tinplate and other containers)	AOAC 985.16 (Codex general method)	Atomic absorption spectrophotometry	II
Cooked cured chopped meat	Fat	ISO 1443-1973	Gravimetry (extraction)	I
Cooked cured chopped meat	Lead	AOAC 972.25 (Codex general method)	Atomic absorption spectrophotometry	II
Cooked cured chopped meat	Nitrites	AOAC 973.31 (Codex general method)	Colorimetry	II
Cooked cured chopped meat	Nitrites	ISO 2918:1975 (confirmed 1996)	Colorimetry	IV
Cooked cured chopped meat	Tin	AOAC 985.16 (Codex general method)	Atomic absorption spectrophotometry	II
Cooked cured ham	Fat	ISO 1443:1973	Gravimetry (extraction)	I
Cooked cured ham	Gelatin, added	Described in the Standard	Calculation	I
Cooked cured ham	Lead	AOAC 972.25 (Codex general method)	Atomic absorption spectrophotometry	II
Cooked cured ham	Nitrites	AOAC 973.31 (Codex general method)	Colorimetry	II
Cooked cured ham	Nitrites	ISO 2918:1975 (confirmed 1996)	Colorimetry	IV
Cooked cured ham	Protein (conversion factor 6.25)	ISO 937:1978 (confirmed 1995)	Titrimetry, Kjeldahl digestion	II
Cooked cured ham	Tin	AOAC 985.16 (Codex general method)	Atomic absorption spectrophotometry	II
Cooked cured pork shoulder	Fat	ISO 1443:1973	Gravimetry (extraction)	I
Cooked cured pork shoulder	Gelatin, added	Described in the Standard	Calculation	I
Cooked cured pork shoulder	Lead	AOAC 972.25 (Codex general method)	Atomic absorption spectrophotometry	II
Cooked cured pork shoulder	Nitrites	AOAC 973.31 (Codex general method)	Colorimetry	II

Cooked cured pork shoulder	Nitrites	ISO 2918:1975 (confirmed 1996)	Colorimetry	IV
Cooked cured pork shoulder	Protein	ISO 937:1978 (confirmed 1995)	Titrimetry, Kjeldahl digestion	II
Cooked cured pork shoulder	Tin	AOAC 985.16 (Codex general method)	Atomic absorption spectrophotometry	II
Luncheon meat	Fat	ISO 1443:1973	Gravimetry (extraction)	I
Luncheon meat	Lead	AOAC 972.25 (Codex general method)	Atomic absorption spectrophotometry	II
Luncheon meat	Nitrites, potassium and/or sodium salt	AOAC 973.31 (Codex general method)	Colorimetry	II
Luncheon meat	Nitrites, potassium and/or sodium salt	ISO 2918:1975 (confirmed 1996)	Colorimetry	IV
Luncheon meat	Tin	AOAC 985.16 (Codex general method)	Atomic absorption spectrophotometry	II
Sugars and Honey				
Honey	Acidity	MAFF Validated Method V19 *J. Assoc. Public Analysts* (1992) 28 (4) 171-175	Titrimetry	I
Honey	Moisture	AOAC 969.38B or MAFF Validated Method V21	Refractometry	I
Honey	Sample preparation	AOAC 920.180	-	-
Honey	Solids, water-insoluble	MAFF Validated Method V22 *J. Assoc. Public Analysts* (1992) 28(4) 189-193	Gravimetry	I
Honey	Sugars added (for sugar profile)	AOAC 998.18	Carbon isotope ratio mass spectrometry	I
Honey	Sugars added: detection of corn and cane sugar products	AOAC 978.17	Carbon isotope ratio mass spectrometry	I
Sugars (dextrose anhydrous and dextrose monohydrate)	D-Glucose	ISO 5377:1981	Titrimetry	I

Sugars (dextrose anhydrous and dextrose monohydrate)	Solids, total	ISO 1741:1980	Gravimetry (vacuum oven)	I
Sugars (dextrose anhydrous and dextrose monohydrate, dried glucose syrup, glucose syrup, powdered dextrose, lactose)	Sulphated ash	ISO 5809:1982	Single sulphonation	I
Sugars (dextrose anhydrous and dextrose monohydrate)	Sulphur dioxide	ISO 5379:1983	Acidimetry and nephelometry	IV
Sugars (fructose)	pH	ICUMSA GS 1/2/3/4/7/8-23 (1994)	Potentiometry	I
Sugars (fructose)	Conductivity ash	ICUMSA GS 2/3-17 (1994)	Conductimetry	I
Sugars (fructose)	D-Fructose	ISO 10504:1988	Liquid chromatography (refractive index detection)	II
Sugars (fructose)	D-Glucose	ISO 10504:1988	Liquid chromatography (refractive index detection)	II
Sugars (fructose)	Loss on drying	ISO 1742:1980	Gravimetry	I
Sugars (fructose)	Sulphur dioxide	ISO 5379:1983	Acidimetry and nephelometry	IV
Sugars (glucose syrup and dried glucose syrup)	Reducing sugar	ISO 5377:1981	Titrimetry	I
Sugars (glucose syrup and dried glucose syrup)	Solids, total	ISO 1742:1980	Gravimetry (vacuum oven)	I
Sugars (glucose syrup and dried glucose syrup)	Sulphur dioxide	ISO 5379:1983	Acidimetry and nephelometry	IV
Sugars (lactose)	Lactose, anhydrous	ICUMSA GS 4/3-3 (1994)	Titrimetry	II
Sugars (lactose)	Loss on drying	USP General Chapter 731	Gravimetry (Drying at 120°C for 16 h)	I
Sugars (lactose)	pH	ICUMSA GS 1/2/3/4/7/8-23 (1994)	Potentiometry	I
Sugars (plantation or mill white sugar)	Conductivity ash	ICUMSA GS 1/3/4/7/8-13 (1994)	Conductimetry	I
Sugars (plantation or mill white sugar)	Invert sugar	ICUMSA GS 1/3/7-3 (1994)	Titrimetry (Lane & Eynon)	I

Sugars (plantation or mill white sugar)	Loss on drying	ICUMSA GS 2/1/3-15 (1994)	Gravimetry	I
Sugars (plantation or mill white sugar)	Polarization	ICUMSA GS 1/2/3-1 (1994)	Polarimetry	II
Sugars (plantation or mill white sugar)	Sulphur dioxide	ICUMSA GS 2/3-35 (1998) NMKL 135 (1990) EN 1988-2 (1998)	Enzymatic method	II
Sugars (powdered sugar and powdered dextrose)	Sulphur dioxide	ICUMSA GS 2/3-35 (1998) NMKL 135 (1990) EN 1988-2 (1998)	Enzymatic method	II
Sugars (powdered sugar)	Colour	ICUMSA GS 2/3-9 (1994)	Photometry	I
Sugars (powdered sugar)	Conductivity ash	ICUMSA GS 2/3-17 (1994)	Conductimetry	I
Sugars (powdered sugar)	Invert sugar	ICUMSA GS 2/3-5 (1997) after filtration if necessary to remove any anticaking agents	Titrimetry	I
Sugars (powdered sugar)	Loss on drying	ICUMSA GS 2/1/3-15 (1994)	Gravimetry	I
Sugars (powdered sugar)	Polarization	ICUMSA GS 2/3-1 after filtration if necessary to remove any anticaking agents	Polarimetry	II
Sugars (raw cane sugar)	Sulphur dioxide	ICUMSA GS 2/3-35 (1998) NMKL 135 (1990) EN 1988-2 (1998)	Enzymatic method	II
Sugars (soft white sugar and soft brown sugar)	Conductivity ash	ICUMSA GS 1/3/4/7/8-13 (1994)	Conductimetry	I
Sugars (soft white sugar and soft brown sugar)	Invert sugar	ICUMSA GS 4/3-3 (1994) (applicable at levels >10% m/m)	Titrimetry (Lane & Eynon)	I
Sugars (soft white sugar and soft brown sugar)	Invert sugar	ICUMSA GS 1/3/7-3 (1994) (applicable at levels <10% m/m)	Titrimetry (Lane & Eynon)	I
Sugars (soft white sugar and soft brown sugar)	Loss on drying	ICUMSA GS 2/1/3-15 (1994)	Gravimetry	I
Sugars (soft white sugar and soft brown sugar)	Sucrose plus invert sugar	ICUMSA GS 4/3-7 (1994)	Titrimetry	I
Sugars (soft brown sugar)	Sulphated ash	ICUMSA GS 1/3/4/7/8-11 (1994)	Gravimetry	I

Sugars (soft white sugar and soft brown sugar)	Sulphur dioxide	ICUMSA GS 2/3-35 (1998) NMKL 135 (1990) EN 1988-2 (1998)	Enzymatic method	II
Sugars (soft white sugar)	Colour	ICUMSA GS 2/3-9 (1994)	Photometry	I
Sugars (white sugar)	Conductivity ash	ICUMSA GS 2/3-17 (1994)	Conductimetry	I
Sugars (white sugar)	Invert sugar	ICUMSA GS 2/3-5 (1997)	Titrimetry	I
Sugars (white sugar)	Loss on drying	ICUMSA GS 2/1/3-15 (1994)	Gravimetry	I
Sugars (white sugar)	Polarization	ICUMSA GS 2/3-1 (1994)	Polarimetry	II
Sugars (white sugar)	Sulphur dioxide	ICUMSA GS 2/3-35 (1998) NMKL 135 (1990) EN 1988-2 (1998)	Enzymatic method	II
Miscellaneous Products				
Edible cassava flour	Fibre, crude	ISO 5498:1981 (B.5 separation)	Gravimetry	I
Edible cassava flour	Granularity	ISO 2591-1:1988	Sieving	I
Edible cassava flour	Moisture	ISO 712:1998	Gravimetry	I
Food grade salt	Arsenic	ESPA/CN-E/105-1996	Photometry	II
Food grade salt	Cadmium	ESPA/CN-E/107-1997	Atomic absorption spectrophotometry	II
Food grade salt	Calcium and magnesium	ISO 2482:1973	Complexometric titrimetry	II
Food grade salt	Copper	ESPA/CN-E/101-1994	Photometry	II
Food grade salt	Halogens	ISO 2481:1973	Mercurimetry	II
Food grade salt	Insoluble matter	ISO 2479:1972	Gravimetry	II
Food grade salt	Iodine	ESPA/CN-E/109-1994	Titrimetry using sodium thiosulphate	II
Food grade salt	Iodine	AOAC 925.56	Titrimetry using sodium thiosulphate	III
Food grade salt	Lead	ESPA/CN-E/108-1994	Atomic absorption spectrophotometry	II
Food grade salt	Loss on drying	ISO 2483:1973	Gravimetry (drying at 110°C)	I

Food grade salt	Mercury	ESPA/CN-E/106-1994	Cold vapour atomic absorption spectrophotometry	II
Food grade salt	Potassium	ESPA/CN-E/104-1994 (applicable to products containing ≥2 mg-K/kg)	Flame atomic absorption spectrophotometry	II
Food grade salt	Potassium	ESPA/CN-E/103-1994 (applicable to products containing ≥100 mg-K/kg)	Titrimetry	III
Food grade salt	Sodium chloride	Described in the Standard	Calculation	I
Food grade salt	Sulphate	ISO 2480:1972	Gravimetry	II
Gari	Ash	ISO 2171:1993	Gravimetry	I
Gari	Fibre, crude	ISO 5498:1981 (B.5 separation)	Gravimetry	I
Gari	Granularity	ISO 2591-1:1988	Sieving	I
Gari	Moisture	ICC Method No 109/1 (1986) ISO 712:1998	Gravimetry	I
Guideline level for acrylonitrile	Acrylonitrile	AOAC 985.13	Gas chromatography	II
Guideline levels for mercury in fish	Methyl mercury	AOAC 988.11	Atomic absorption spectrophotometry	II
Guideline levels for vinyl chloride monomer	Vinyl chloride monomer	ISO 6401:1985	Gas chromatography	II
Guideline levels for vinyl chloride monomer	Vinyl chloride monomer	Commission Directive 81/432/EEC O.J. No. L.167, p. 6, 24.6.81	Gas chromatography ("head-space")	III
Guidelines for nutrition labelling	Polyunsaturated fatty acids	AOCS Ce 1h-05[9]	Gas liquid chromatography	II
Guidelines for nutrition labelling	Saturated fat	AOAC 996.06; or AOCS Ce 1h-05	Gas liquid chromatography	II
Guidelines for nutrition labelling	Saturated fatty acids	AOCS Ce 1h-05	Gas liquid chromatography	II

[9] Can also be used to measure *trans* unsaturated fatty acids

PART B

METHODS OF SAMPLING BY ALPHABETICAL ORDER OF COMMODITY CATEGORIES AND NAMES

Commodity Standard	Method of Sampling	Notes
Cereals, Pulses and Legumes and Derived Products		
Durum wheat semolina and durum wheat flour	Described in the Standard (According to Codex Sampling Instructions)	
Wheat protein products including Wheat gluten	ISO 13690:1999	
Fats and Oils		
Olive Oils and Olive-Pomace Oils	ISO 661:1989 and ISO 5555:2001.	
Milk and Milk Products		
Milk products	IDF 50 | ISO 707[10]	General Instructions for obtaining a sample from a bulk
Milk products	IDF 113 | ISO 5538:2004	Inspection by attributes
Milk products	IDF Standard 136A:1992 ISO 8197:1988	Inspection by variables
Butter	IDF 50 | ISO 707	General Instructions for obtaining a sample from a bulk
Cheese	IDF 50 | ISO 707	General Instructions for obtaining a sample from a bulk
Cheeses in brine	IDF 50 | ISO 707	General Instructions for obtaining a sample from a bulk
Edible casein products	IDF 50 | ISO 707	General Instructions for obtaining a sample from a bulk
Creams, Whipped creams and Fermented	IDF Standard 50C:1995	General instructions

[10] *Draft standard which is publicly available*

Creams Fermented Milks	ISO 707:1997 AOAC 968.12	
Evaporated milks	IDF 50 | ISO 707	General Instructions for obtaining a sample from a bulk
Milk powders and cream powders	IDF 50 | ISO 707	General Instructions for obtaining a sample from a bulk
Milkfat products	IDF 50 | ISO 707	General Instructions for obtaining a sample from a bulk
Sweetened condensed milks	IDF 50 | ISO 707	General Instructions for obtaining a sample from a bulk
Whey cheese	IDF 50 | ISO 707	General Instructions for obtaining a sample from a bulk
Whey powders	IDF 113 | ISO 5538:2004	Inspection by attributes
Whey powders	IDF 50 | ISO 707	General Instructions for obtaining a sample from a bulk
Processed Fruits and Vegetables		
Grated desiccated coconut	Described in the Standard (According to Codex Sampling Instruction)	

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。

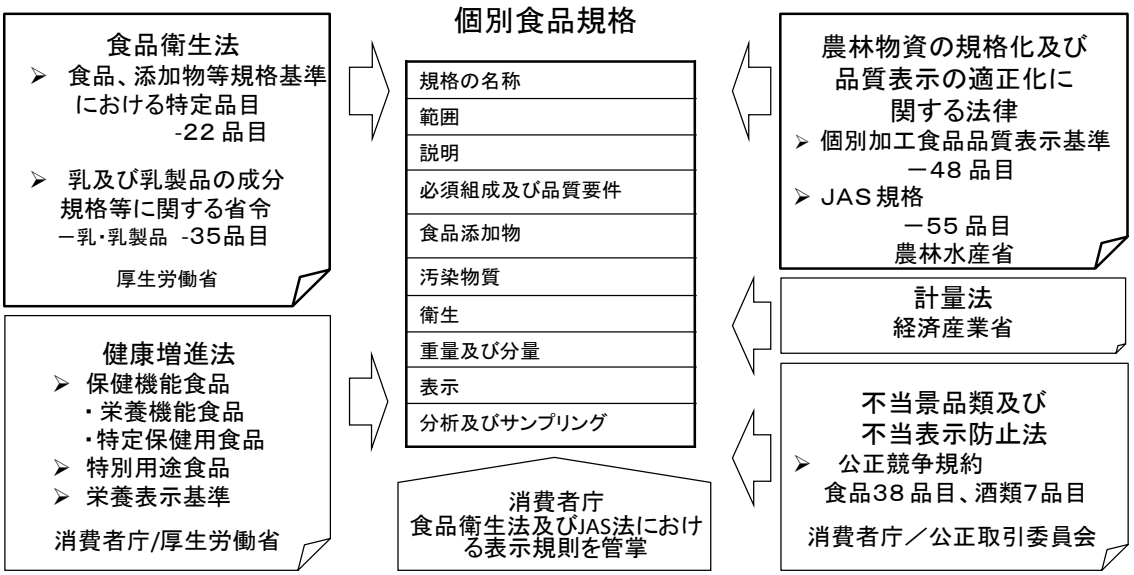
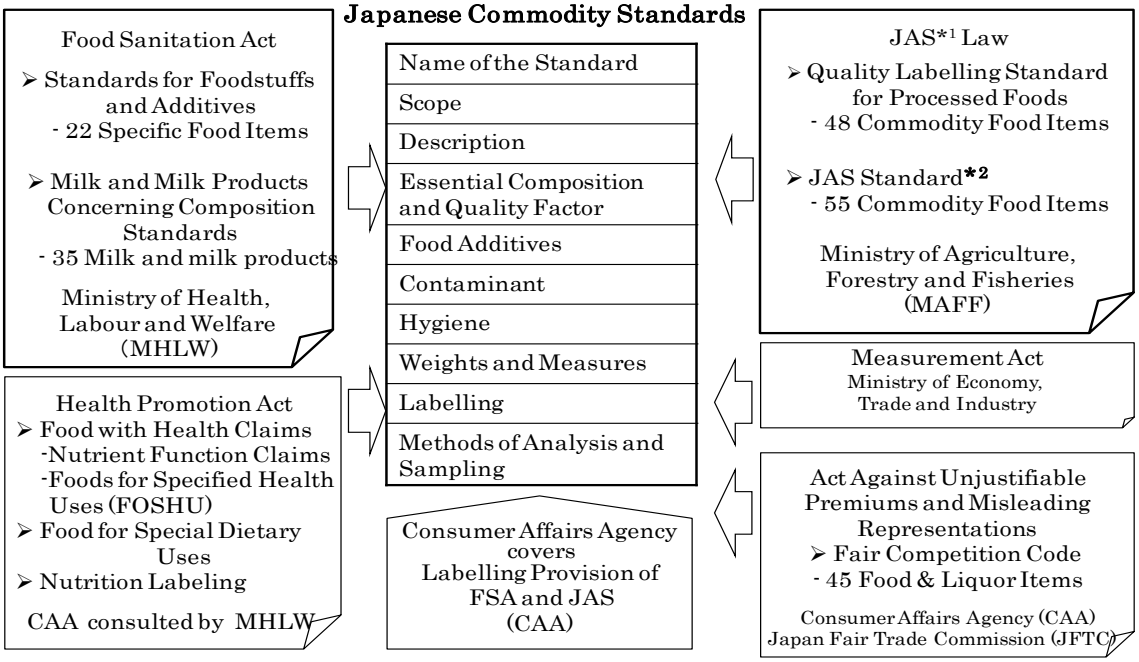


図 3.2-1a　日本の食品法体制



*1 Law Concerning Standization 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

図 3.2-1b　日本の個別食品規格の概要関連図

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（平成 21 年度報告書 表 3.2-1）。

（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（平成 21 年度報告書 表 3.2-2）。

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（平成 21 年度報告書 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（平成 21 年度報告書 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（平成 21 年度報告書 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。

3.2.3　食品一般に関する分析法

食品一般に関しては表 3.2-A に、ケーススタディで取り上げた食品に関しては、それぞれ各食品規格表（表 3.2-6～8）の後に別掲した。

3.2.4　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。

（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。

（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）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-A　食品一般に関する分析法

Related legislation	Item	Specification	Analytical Methods	Reference
Food Sanitation Act	Antibiotics or Chemically synthesized antibacterial substances	Shall not be contained in foods		Food Sanitation Test Guideline "Animal Medicine･Feed Additive 2003"
	Foods shall not contain substances used as ingredients of agricultural chemicals and other chemical substances	Not detectable in foods	Each Test Methodology of 2,4,5-T, Azocyclotin and cyhexatin, Amitrol, Captafol, Carbadox, Coumaphos, Chloramphenicol, Chlorpromazine, Diethlstilbestrol, Dimetridazole, Daminozide, Nitrofurazone, Nitrofurantoin, Furazolidone, Furaltadone, Propham, Malachite Green, Metronidazole and Ronidazole.	Specifications and Standards for Foods, Food Additives, etc.
	Pesticide residues in foods	The residual standard is individually provided.	Systematic or individual analytical methods are genarally as follows: (1)Sample preparation→(2)Extraction with solvent→(3)Purification by chromatography →(4)Preparation of test solution→ (5)Instrumental analysis： GC or GC-MS for volatile substances, LC or LC-MS for non-volatile substances etc.	Test methodology of the substances being the elements of agricultural chemicals, feed additives or verterinary products remaining in foods. (Notice from the Ministry of Health, Labour and Welfare)
	Compositional standards which are not specified in 0-1 through 0-3 shall not contain substances used as agiricultural chemicals nor other chemical substances in excess of the amount.	Not exceed 0.01mg/L		

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			
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 Labelling 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)

＜分析法＞　即席めん

Related legislation	Item	Specification	Analytical Methods	Reference
Food Sanitation Act	Acid value	Not more than 3 mg KOH/g oil	Acid value measurement method by titration	Specifications and Standards for Foods, Food Additives, etc.
	Peroxide value	Not more than 30 meq/kg	Peroxide value measurement method by titration	
JAS Standard	Moisuture	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)		

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 Description	Non-alcoholic (less than 1% alcohol) beverages, excluding lactic acid bacterial drinks, milk and milk drinks	Water–based flavoured drinks with added carbon dioxide, sweetener, acidulant and others	Water–based flavoured drinks with added carbon dioxide, sweetener, acidulant and others
Essential Composition and Quality Factor	● 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 ➢ Packaging Standards ➢ Storage Standards		● Must have satisfactory tone of colour ● Must have refreshing flavour without off-taste and off-odour ● Must not be turbid (with some exception) ● Must carbon dioxide be dissolved well and have fine bubbles sustainably ● No foreign matters
Contaminant			
Hygiene			
Food Additives			● 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
Weights and Measures			Must meet designated volume appeared on the label
Labelling		Specific labelling methods	JAS mark
Methods of Analysis and Sampling	● 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		● Gas volume

＜分析法＞　炭酸飲料

Sub-category	Related legislation	Item	Specification	Analytical Methods	Reference
Soft drink beverages	Food Sanitation Act	Turbidity	Negative		Specifications and Standards for Foods, Food Additives, etc.
		Foreign matter	Negative		
		Arsenic	Not detectable	Wet degradation methodour Dry incineration method→Gutzeit methodour Silver diethyldithiocarbamate method	
		Lead	Not detectable	Wet degradation methodour Dry incineration method→Atomic absorption spectrophotometry or Polarographic analysis	
		Cadmium	Not detectable		
		Tin	Not exceed 150.00 ppm	Wet degradation methodour Dry incineration method→Salicylidenamino-2-thiophenol methodour Polarographic analysis	
		Coliform bacilli	Negative	Presumptive test (BTB lactose broth) → Cofirmation test (Endo or EMB culture medium, or BGLB fermantation tube)→ Conclusive test (Lactose broth fermentation tube and agar slant)	
Mineral water	Food Sanitation Act	Enterococci	Negative	Presumptive test (AC culture medium)→ Confirmation test (new AC culture medium)→ Conclusive test (Glucose agar medium)	Specifications and Standards for Foods, Food Additives, etc.
		Green pus bacilli	Negative	Presumptive test (Asparagine broth)→ Confirmation test (Cetrimide agar medium)	
Apple juices	Food Sanitation Act	Patulin	Not exceed 0.0050 ppm	Extraction→Purification and Silylization→ GC-MS、Purification→HPLC with UD detector or HPLC-MS	Specifications and Standards for Foods, Food Additives, etc.
	JAS Standard	Turbidity	Negative		
		Foreign matter	Negative		

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)**		
➢ Frozen fried　foods	• 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.
➢ 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℃	

＜分析法＞　調理冷凍食品

Sub-category	Related legislation	Item	Specification	Analytical Methods	Reference
Without heating	Food Sanitation Act	Bacteria	<100,000/g	Standard agar medium 35±1.0°C, 24±2h	Specifications and Standards for Foods, Food Additives, etc.
		Coliform bacilli	Negative	Presumptive test (desoxycholate agar medium)→EMB medium→Lactose broth fermentation tube and agar slant. The lactose broth fermentation tube：gas generation→agar slant：microscopic test→Gram-negative nonspore-forming bacilli：coliform bacilli positive	
After heating (heated before freezeing)		Bacteria	<100,000/g	Standard agar medium 35±1.0°C 24±2h	
		Coliform bacilli	Negative	Presumptive test (desoxycholate agar medium)→EMB medium→Lactose broth fermentation tube and agar slant. The lactose broth fermentation tube：gas generation→agar slant：microscopic test→Gram-negative nonspore-forming bacilli：coliform bacilli positive	
After heating (other than 2 above)		Bacteria	<3,000,000/g	Standard agar medium 35±1.0°C, 24±2h	
		Coliform bacilli	Negative	EC fermentation tube (EMB medium) →Gas generation：Presumptive test positive→EMB medium→Lactose broth fermentation tube and agar slant. The lactose broth fermentation tube：gas generation→The agar slant：microscopic test→Gram-negative nonspore-forming bacilli：*E.coli* positive	

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。

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

[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

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

農業適正規範（GAP）　有機加工食品　遺伝子組み換え食品

- 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

農産物ﾄﾚｰｻﾋﾞﾘﾃｨ　水産物ﾄﾚｰｻﾋﾞﾘﾃｨ　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 Code[6]が定められており、共通に適用される。

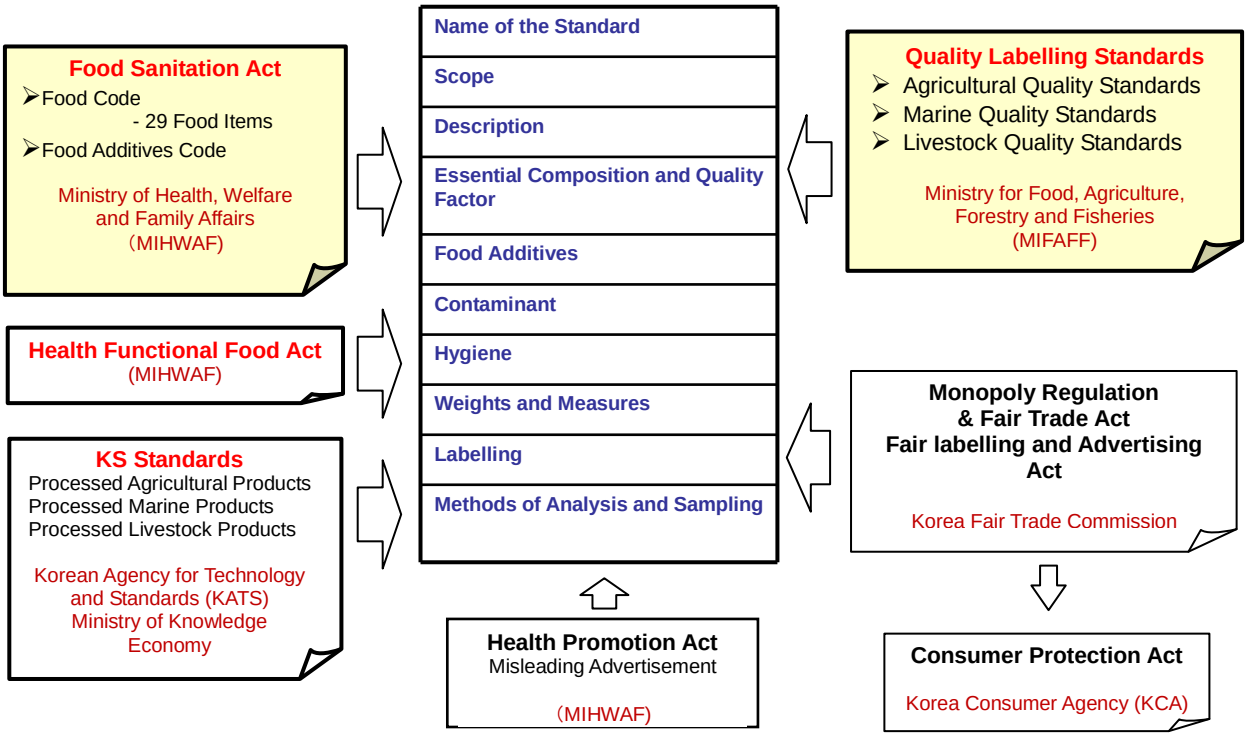


図 3.3- 1 ：韓国の食品規格の概要図

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。

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、第 3 条（長期保存食品）に規定される個別食品規格を平成 21 年度報告書 表 3.3-2 に、第 5 条に規定される個別食品規格を平成 21 年度報告書 表 3.3-3 に

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

示す。

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平成 21 年度報告書 表 3.3-4～-7 に示した。

図 3.3-2：KS マーク

3.3.3　食品一般に関する分析法

食品一般に関しては表 3.3-A に、ケーススタディで取り上げた食品に関しては、それぞれ各食品規格表（表 3.2-8～10）の後に別掲した。

3.3.4　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。

[7] KATS (http://kats.go.kr/english/index.asp)（Accessed: 2010/03/19）
[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-A　食品一般に関する分析法

Related legislation	Item	Specification	Analytical Methods	Reference
Food Sanitation Act	Foreign Material	Food shall not contain unhygienic material to be mixed with foreign material. Iron filings as metallic foreign matter : < not more than 10.0 mg/kg Any metallic particles : <2.0 mm in length	Foreign materials: strainer method (fine powder), Filter method(Liquid), Wildeman Flask method (insect, animal fur/light materials), Precipitation method (mouse feces, etc. heavy matters) Metalic foreign matter : Prepare sample (500g powder, 1 kg liquid/paste in 5~6 L distilled water) -> Use stick magnet (10,000 gause) for 10 min to collect -> Dry and measure weight -> Screen using sieve (1.4X1.4 mm) and measure the size of metalic materials.	Korea Food Code (Ariticle 10. 9.2.1)
	Food poisoning bacteria	Not detectable in foods	Systematic or individual analytical methods are genarally as follows: (1) Aseptic Sample preparation (homogenization and serial dilution if necessary) → (2) enrichment with respective media → (3) Plate on respective selective media and pick suspected colonies → (4) confirm by further identification test	Korea Food Code (Article 10-3) : Salmonella (10.3.11), *Staphylococcus aureus* (10.3.12), *Vibrio parahamolyticus* (10.3.13), *Clostridium perfringens* (10.3.14), *Listeria monocytogenes* (10.3.15), *E. coli* O157:H7 (10.3.16), *Yersinia entericolitica* (10.3.17), *B. cereus* (10.3.18), *Camphylobacter jejuni* (10.3.19), *Clostridum botulinum* (10.3.20)
	Pesticide Maximum Residue Limits in foods	The residual standard is individually provided.	Systematic or individual analytical methods are genarally as follows: (1) Sample preparation → (2) Extraction with solvent → (3) Purification by chromatography → (4) Preparation of test solution → (5) Instrumental analysis: GC or GC-MS for volatile substances, LC or LC-MS for non-volatile substances etc.	Korea Food Code (Article 10.4)

	Any veterinary drugs (including their metabolites) of which manufacture or import is not authorized due to safety or efficacy problems shall not be detected.	Not detectable in foods	Nitrofurans and its derivatives(Furazolidone, Furaltadone, Nitrofurazone, Nitrofurantoine, Nitrovin, etc.), Chloramphenicol, Malachite green and its derivatives, Diethylstilbestrol, Dimetridazole, Clenbuterol, Vancomycin, Chlorpromazine, Thiouracil, Colchicine, Pyrimethamine, Medroxyprogesterone acetate Simple, Preliminary Test : Charm II receptor assay, Fluorescence Immunoassay, or Enzye Immuno Assay Confirmation Test : Liquid/Gas Chromatography-Mass Spectrometer	Korea Food Code (Article 10.5)

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 colour : Should not be detected 2) Preservatives : Should not be detected Anything not specified follows “Korea Food Additives Code”	Tar colour 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 products) 3) Coliform group : Negative (Limited to pasteurized products)	* Containers/Packing condition * Microbiological Criteria: *E. coli*: Negative Coliform group: Negative The number of Bacteria: 1,000 (only for precooked noodle)
Labelling	Specific Labelling Methods required (Nutrition Facts, Pasteurized? Non-pasteurized ? Fried? Alcohol-treated?)	Labelling Standards follow "General Standard of Labelling for Processed Foods" (KS H 1101) Labelling 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.

＜分析法＞　即席めん

Related legislation	Item	Specification	Analytical Methods	Reference
Food Sanitation Act	Bacteria	Not more than 1,000,000 (Limited to alchohol-treated products)	Plate count agar (35±1°C 24-48h)	Korea Food Code (Article 10.3.5.1)
		Not more than 100,000 (Limited to pasteurized products)	Plate count agar (35±1°C 24-48h)	
	E. coli	Negative (Limited to alcohol-treated products)	EC fermentation tube (44.5°C 24±2h) →Gas generation : Presumptive test positive→EMB medium (35±1°C 24±2h)→Lactose broth fermentation tube and nutrient agar. The lactose broth fermentation tube(35±1°C 48±3h) : gas generation→The nutrient agar(35±1°C 24±2h) : microscopic test→Gram-negative nonspore-forming bacilli : *E.coli* positive	Korea Food Code (Article 10.3.8)
	Coliform	Negative (Limited to pasteurized products)	LB fermentation tube (35±1°C 48±3h) →Gas generation : Presumptive test positive→BGLB fermentation tube (35±1°C 48±3h) →Gas generation→EMB medium (35±1°C 24±2h) → Typical colony : Confirmative test positive →Lactose broth fermentation tube and nutrient agar . The lactose broth fermentation tube(35±1°C 48±3h) : gas generation→The nutrient agar(35±1°C 48±3h) : microscopic test→Gram-negative nonspore-forming bacilli : Coliform positive	Korea Food Code (Article 10.3.7)
	Acid value of oil	Not more than 2.5	Acid value measurement method by titration	Korean Food Code (Article 10, 1.1.5.3.1)
	Peroxide value of oil	Not more than 50	Peroxide value measurement mothod by titration	Korean Food Code (Article 10, 1.1.5.3.5)

KS Standard	*E. coli*	Negative	EC fermentation tube (44.5°C 24±2h) →Gas generation : Presumptive test positive→EMB medium (35±1°C 24±2h)→Lactose broth fermentation tube and nutrient agar. The lactose broth fermentation tube(35±1°C 48±3h) : gas generation→The nutrient agar(35±1°C 24±2h) : microscopic test→Gram-negative nonspore-forming bacilli : *E.coli* positive	KS Determination of Micro-organism (KS H ISO 7251, KS H ISO 4831~4833)
	Coliform group	Negative	LB fermentation tube (35±1°C 48±3h) →Gas generation : Presumptive test positive→BGLB fermentation tube (35±1°C 48±3h) →Gas generation→EMB medium (35±1°C 24±2h) → Typical colony : Confirmative test positive →Lactose broth fermentation tube and nutrient agar . The lactose broth fermentation tube(35±1°C 48±3h) : gas generation→The nutrient agar(35±1°C 48±3h) : microscopic test→Gram-negative nonspore-forming bacilli : Coliform positive	KS Determination of Micro-organism (KS H ISO 7251, KS H ISO 4831~4833)
	Bacteria	1000 (only for precooked noodle)	Plate count agar (35±1°C 24-48h)	KS Determination of Micro-organism (KS H ISO 7251, KS H ISO 4831~4833)
	Max moisuture	9%	Moisture measurement by air oven method	Determination of Water Content (KS H 1201)
	Acid value of oil	Not more than 1.5	Acid value measurement method by titration	Determination of Acid/Peroxide Valule
	Peroxide value of oil	Not more than 25	Peroxide value measurement mothod by titration	

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/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 colour and flavour Must not have off-taste and off-odour 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 .
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
Labelling	Specific labelling 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.	Labelling Standards follow "General Standard of Labelling 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.

＜分析法＞　炭酸飲料

Related legislation	Item	Specification	Analytical Methods	Reference
Food Sanitation Act	Lead (mg/kg)	Not more than 0.3	Wet degradation method, Dry incineration methodour Solvent Extraction method -> Inductively Coupled Plasma Spectrometry (ICP)|	Korea Food Code (2010, 7.1.2.1)
	Cadmium (mg/kg)	Not more than 0.1	Wet degradation method, Dry incineration methodour Solvent Extraction method -> Inductively Coupled Plasma Spectrometry (ICP)|	Korea Food Code (2010, 7.1.2.2)
	Tin (mg/kg)	Not more than 150 (Limited to canned products)	Wet degradation methodour Dry incineration method→ Salicylidenamino-2-thiophenol (SATP) methodour Polarographic analysis	Korea Food Code (2010, 7.1.2.6)
	Bacteria	Not more than 100/ml	Plate count agar (35±1°C 24-48h)	Korea Food Code (10.3.5.1)
	Coliform	Negative (Limited to pasteurized products)	LB fermentation tube (35±1°C 48±3h) →Gas generation: Presumptive test positive→BGLB fermentation tube (35±1°C 48±3h) →Gas generation→EMB medium (35±1°C 24±2h) →Typical colony: Confirmative test positive →Lactose broth fermentation tube and nutrient agar . The lactose broth fermentation tube (35±1°C 48±3h): gas generation→The nutrient agar (35±1°C 48±3h): microscopic test→Gram-negative nonspore-forming bacilli: Coliform positive	Korea Food Code (Article 10.3.7)

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	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. 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. 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℃ and chilled temperature is 0~10℃. (2) After frozen food is thawed, it shall not be distributed as room temperature foodour chilled food, and the room temperature foodour 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.	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
Labelling	Frozen food shall be labeled according to the following criteria : (1) It shall be labeled as either frozen food good to eat unheated or frozen food to eat after heated. (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. (3) Frozen food shall indicate the methods of storage in freezing conditions and the methods of thawing for cooking. (4) Products that require cooking or heating shall indicate the methods of cooking or heating. (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. (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.	Labelling Standards follow "General Standard of Labelling for Processed Foods" (KS H 1101)
Methods of Analysis and Sampling	Determination of Bacteria counts, *E.coli*, 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.

＜分析法＞　冷凍食品

Sub-category	Related legislation	Item	Specification	Analytical Methods	Reference
Without heating	Food Sanitation Act	Bacteria	Not more than 100,000/g (Except for fermatative or lactic acid bacteria added products)	Plate count agar (35±1°C 24-48h)	Korea Food Code (10.3.5.1)
		Coliform	Not more than 10/g	Desoxycholate agar (35±1°C 20±2h) or Dehydrated cliform film (35±1°C 24±2h)	Korea Food Code (Article 10.3.7)
		Lactic acid bacteria	More than indicating quantity	BCP plate count agar (35-37°C 72±3h)	Korea Food Code (Article 10.3.9)
After heating (heated before freezeing)	Food Sanitation Act	Bacteria	Not more than 100,000/g (Except for fermatative or lactic acid bacteria added products)	Plate count agar (35±1°C 24-48h)	Korea Food Code (10.3.5.1)
		Coliform	Not more than 10/g	LB fermentation tube (35±1°C 48±3h) →Gas generation: Presumptive test positive→BGLB fermentation tube (35±1°C 48±3h) →Gas generation→EMB medium (35±1°C 24±2h) → Typical colony: Confirmative test positive →Lactose broth fermentation tube and nutrient agar . The lactose broth fermentation tube(35±1°C 48±3h): gas generation→The nutrient agar(35±1°C 48±3h): microscopic test→Gram-negative nonspore-forming bacilli: Coliform positive	Korea Food Code (Article 10.3.7)
		Lactic acid bacteria	More than indicating quantity	BCP plate count agar (35-37°C 72±3h)	Korea Food Code (Article 10.3.9)
After heating (not heated before freezeing)	Food Sanitation Act	Bacteria	Not more than 100,000/g (Except for fermatative or lactic acid bacteria added products	Plate count agar (35±1°C 24-48h)	Korea Food Code (10.3.5.1)
		E. coli	Negative (Limited to alcohol-treated products)	EC fermentation tube (44.5°C 24±2h) →Gas generation：Presumptive test positive→EMB medium (35±1°C 24±2h)→Lactose broth fermentation tube and nutrient agar. The lactose broth fermentation tube(35±1°C 48±3h)：gas generation→The nutrient agar(35±1°C 24±2h)：microscopic test→Gram-negative nonspore-forming bacilli: *E.coli* positive	Korea Food Code (Article 10.3.8)
		Lactic acid bacteria	More than indicating quantity	BCP plate count agar (35-37°C 72±3h)	Korea Food Code (Article 10.3.9)

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ことになった。

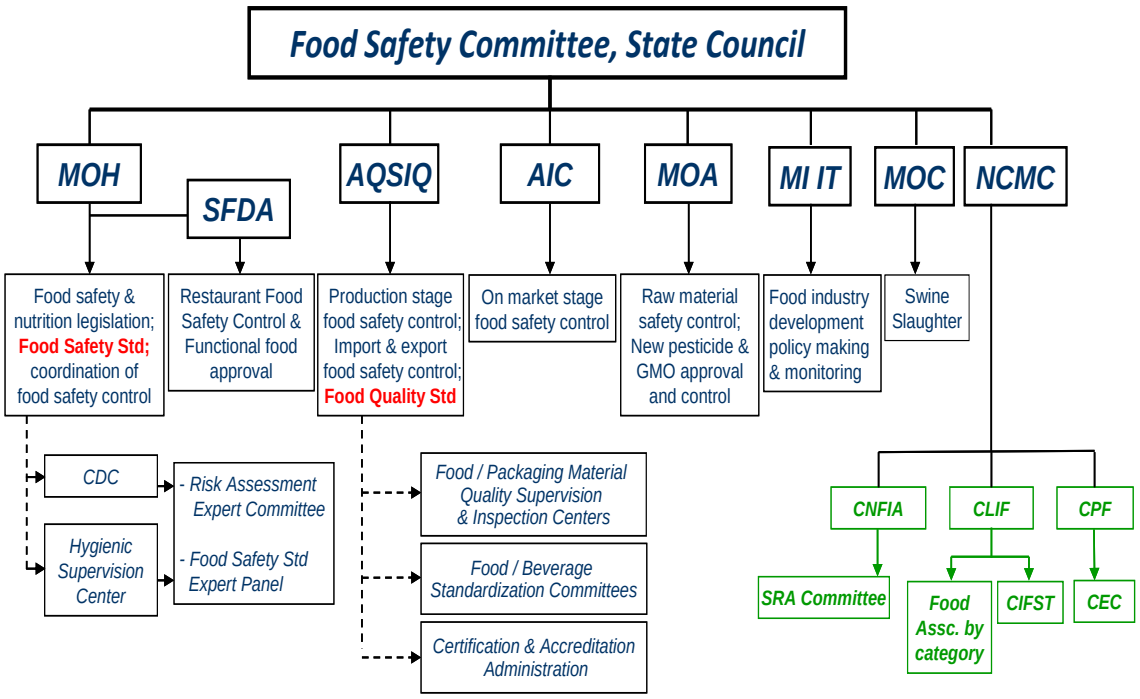


図 3.4-1　食品安全法に基づく食品行政体制

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、GB 2760 は「食品添加物の使用に関する衛生基準」、GB 7718 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。

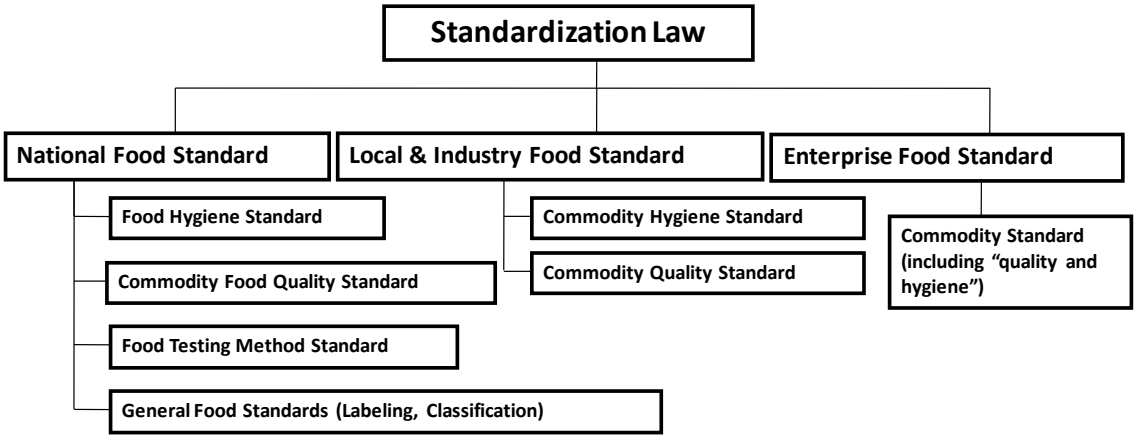
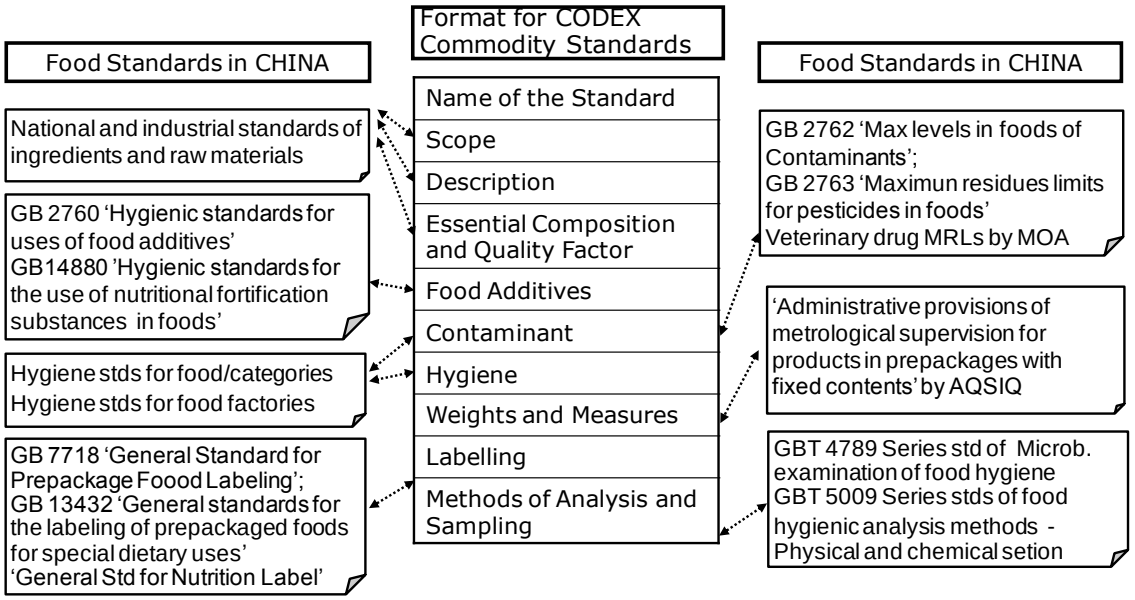


図 3.4-2　中国の食品規格の三階層性

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、国務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 GB 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 GB 規格、GB 2760（食品添加物の使用に関する衛生基準）、GB 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 GB 2762（食品中の汚染物質の最大許容量についての基準）、GB 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 GB 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 JJF 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 3.4.4 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　食品一般に関する分析法

食品一般に関しては表 3.4-A に、ケーススタディで取り上げた食品に関しては、それぞれ各食品規格表（表 3.4-1～3）の後に別掲した。

3.4.4　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。

（1）即席めん

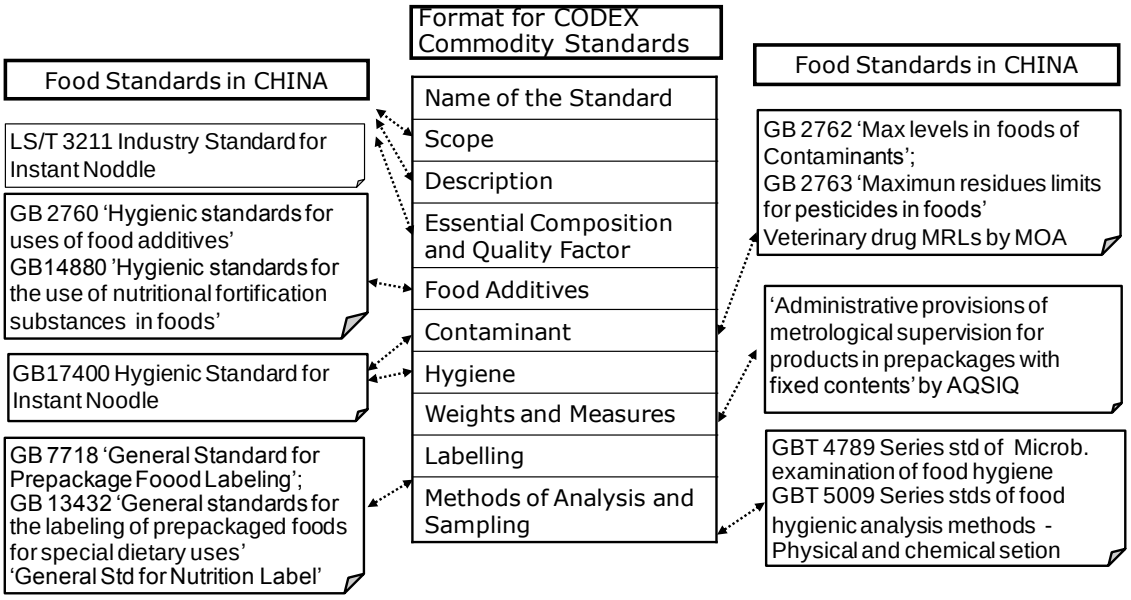


図 3.4-4　即席めんにおける食品規格の概要図

（2）炭酸飲料

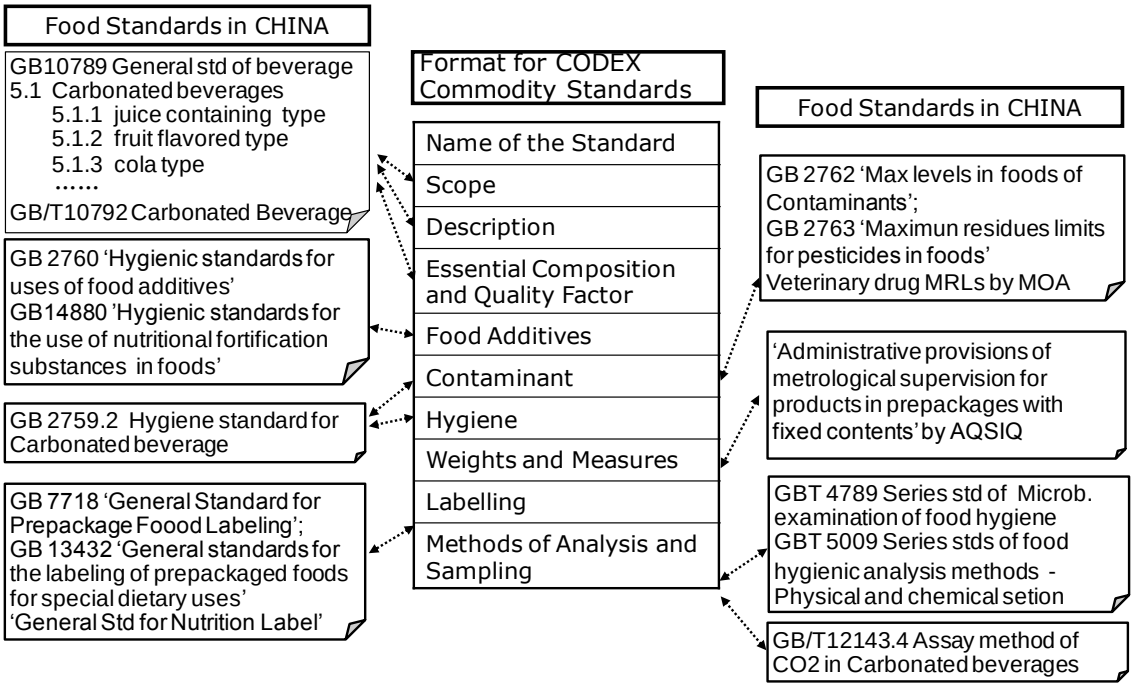


図 3.4-5　炭酸飲料における食品規格の概要図

（３）調理冷凍食品

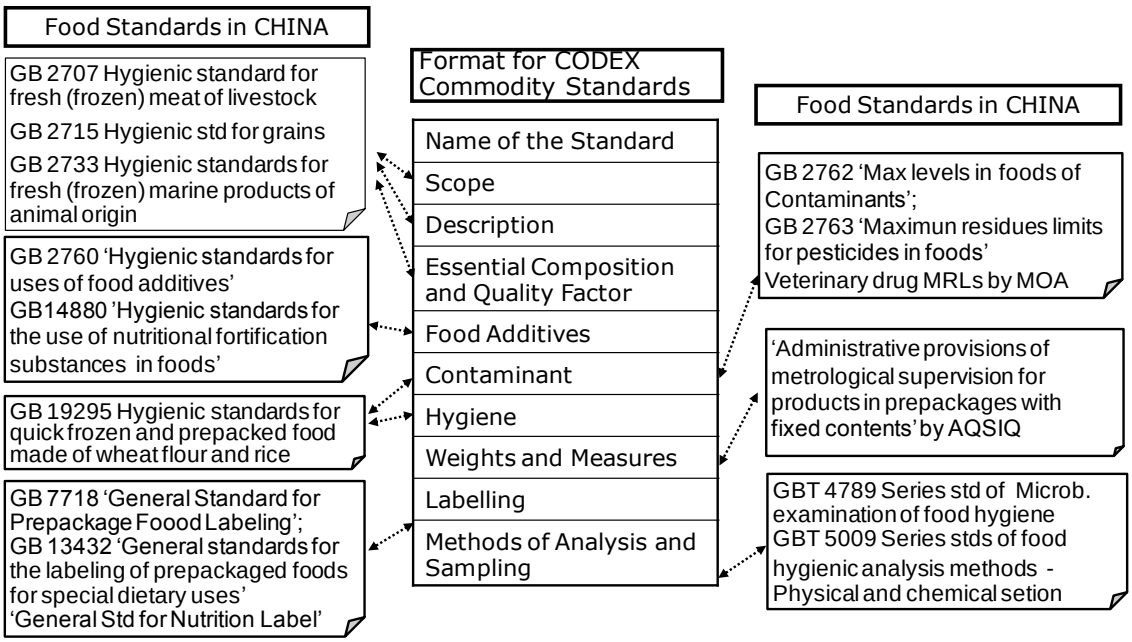


図 3.4-6　調理冷凍食品における食品規格の概要図

表 3.4-A　食品一般に関する分析法

Related legislation	Item	Specification	Analytical Methods	Reference
GB 4789-2010 National Food Safety Standard Food Microbiological examination	Aerobic Plate Count	This standard is to state the analytical mathod for pathogens and hygiene indicator microbes. The specific limitation in certain food category will be stated in separate standards of category.	Difference with FDA/BAM, Chapter 3: Aerobic plate count, 2001 - Appropriate enumeration scope of plate counts computed change to 30 cfu ～ 300cfu from 25 cfu ～250 cfu. - Incubate temperature change to 36 ± 1°C from 35 ± 1°C. - 10 times dilution, change to transferring 1ml of previous dilution to 9 ml of diluent from transferring 10ml of previous dilution to 90 ml - do not adopt the Spiral Plate Method	GB 4789.2-2010 National Food Safety Standard Food Microbiological examination: Aerobic plate count
	Enumeration of coliforms		Difference with FDA/BAM, Chapter 4: Enumeration of Escherichia coli and the coliform bacteria, 2002 - Appropriate enumeration scope of plate counts computed change to 15 cfu ～ 150 cfu from 25 cfu～250 cfu. - Incubate temperature change to 36 ± 1°C from 35 ± 1°C. - Sample size change to 25g(or 25ml) form 50g(or 50ml)	GB 4789.3-2010 National Food Safety Standard Food Microbiological examination: Enumeration of coliforms
	Salmonella		Same as FDA/BAM, Chapter 5: Salmonella, 2003 and AOAC official Method 967.26, 967.27,967.28.	GB 4789.4-2010 National Food Safety Standard Food Microbiological examination: Salmonella

	Staphylococcus aureus		total 3 Methods 1.The First Method: Qualitative Analysis, it refers to AOAC office Method 987.09 *Staphylococcus aureus* in foods most probable numble method for isolation and enumeration and ISO 6888-1: 1999 Microbiology of food and animal feeding stuffs-Horizontal method for the enumeration of coagulase-positive staphylococci, *Staphlococcus aureaus* and other species - Part1 : Technique using Baird-Parker agar medium 2.Second Method: Modified by AOAC 975.55 *Staphylococcus aureus* in foods surface plating method isolation and enumberation, 1976 and ISO 6888-1:1999, the difference are: - Change the AOAC sampling size to 25g(or 25ml) from 50g(or 50ml) - Modified the ISO computational formula 3.The third Method: modified by AOAC 987.07, the difference is: - Change the AOAC sampling size to 25g(or 25ml) from 50g(or 50ml)	GB 4789.10-2010 National Food Safety Standard Food Microbiological examination: *Staphylococcus aureus*
	Enumeration of moulds and yeasts		Sampling Preparation, Dilution, plating and incubation of sampling (Potato dextrose agar, or Rose bengal medium) , counting of plate	GB 4789.15-2010 National Food Safety Standard Food Microbiological examination: Enumeration of moulds and yeasts
	Listeria monocytogenes		Difference with FDA/BAM, Chapter 10, Listeria monocytogenes, 2002 - Enrichment Medium, LB Broth replaced of BLEB Broth - Isolation Medium, PALCAM replaced of OXA, add CHROMAGAR Listeria colouration media - Add the preliminary screening step - Incubate temperature change to 36 ± 1°C from 35 ± 1°C.	GB 4789.30-2010 National Food Safety Standard Food Microbiological examination: *Listeria monocytogenes*

	Lactic acid bacteria		Presumptive test (Sampling Preparation, Dilution, plating and incubation of sampling (MRS agar, MC agar), counting of plate)→Identification test (MRS agar plate or MC agar plate)→ Report	GB 4789.35-2010 National Food Safety Standard Food Microbiological examination: Lactic acid bacteria
	Enterobacter sakazakii		First method, Modified by ISO/TS 22964：2006（ Milk and milk products -Detection of *Enterobacter sakazakii*）, the difference are: - Incubate temperature change to 36 ± 1°C from 35 ± 1°C - *Enterobacter sakazakii* isolated plate chang to DFI from ESIA, incubate temperature change to 36 ± 1°C from 44 ± 1°C. - decide 100g(or 100ml) as the basic detection unit. Secod Method, it is refer to FDA, Isolation and enumeration of *Enterobacter sakazakii* form dehydrated powdered infant formula (July 2002)	GB 4789.40-2010 National Food Safety Standard Food Microbiological examination: *Enterobacter sakazakii*

Maximum levels of contaminants in food; Maximum levels of mycotoxins in foods	Lead(Pb)	cereals: 0.2mg/kg; legume: 0.2mg/kg; tubes: 0.2mg/kg; meat and poultry: 0.2mg/kg; edible meat and poultry offal: 0.5mg/kg; fish: 0.5mg/kg; fruit: 0.1mg/kg; small fruit, berry and grape: 0.2mg/kg; vegetable excluding bulb vegetable, leafy vegetable, fungi: 0.1mg/kg; bulb vegetable: 0.3mg/kg; leafy vegetable: 0.3mg/kg; fresh milk: 0.05mg/kg; infant formula: 0.02mg/kg; fresh eggs: 0.2mg/kg; wines: 0.2mg/kg; fruit juice: 0.05mg/kg; tea: 5mg/kg	1.Graphite furnace atomic absorption spectrometry Sample preparation→ashing or digesting→standard solution preparation→determination by instrument. 2.Hydride Generation-atomic Fluorescence Spectrophotometry Sample preparation→digestion→standard solution preparation→determination 3.Flame atomic absorption spectrometric analysis (FAAS) Sample preparation→extraction and separation→determination by instrument 4.Double sulphur hydrazone colourimetry Sample preparation→digestion→standard solution preparation→determination by spectrophotometer 5.single-sweep polarography Sample preparation→digestion→standard solution preparation→determination by polarographic analyze	GB 5009.12-2010 National food safety standard determination of lead in foods

	Cadmium (Cd)	cereals - rice, soybean: 0.2mg/kg, peanut: 0.5mg/kg, flour: 0.1mg/kg, coarse cereal(corn, millet, sorghum, tubes): 0.1mg/kg; meat and poultry: 0.1mg/kg; meat and poultry liver: 0.5mg/kg; meat and poultry kidney: 1.0mg/kg; fruit: 0.05mg/kg; root and tuber vegetable excluding celery: 0.1mg/kg; leafy vegetable, celery, fungi: 0.2mg/kg; other vegetable: 0.05mg/kg; fish: 0.1mg/kg; fresh eggs: 0.05mg/kg	1.Graphite furnace atomic absorption spectrometry Sample preparation→dry ashing or wet digestion→standard solution preparation →determination by instrument 2. Atomic absorption spectrometry (AAS) 2.1 Potassium iodide -4-methyl pentanone-2 Sample preparation→extraction and separation→determination by instrument 2.2 Double sulphur hydrazone-butyl acetate Sample preparation→extration and separation→determination by instrument 3. Colourimetric method Sample preparation→Digestion→determination by spectrophotometer 4. Atomic fluorescence spectrometric (AFS) Samplepreparation→dry ashing or wet digestion→standard solution preparation →determination by AFS	GB/T 5009.15-2003 Determination of cadmium in foods
	Mercury (Hg)	cereals: 0.02mg/kg total Hg; tubes(potato, sweet potato), vegetable, fruit: 0.01mg/kg total Hg; fresh milk: 0.01mg/kg total Hg; meat, liquid eggs: 0.05mg/kg total Hg; fish excluding carnivorous fish and other aquatic products: 0.5mg/kg methyl Hg; carnivorous fish(shark, tuna, etc.): 1.0mg/kg methyl Hg	1.The determination of total mercury 1.1 Atomic fluorescence spectrophotometric Digestion→Preparation of standard solution→Determination by AFS 1.2 Cold atomic absorption spectrometry Sample preparation→Digestion→Instrumental analysis 1.3 Double sulphur hydrazone colourimetry Digestion→Determination by visible spectrophotometer 2.Determination of methylmercury 2.1 Gas Chromatography(GC)or Cold Vapour Atomic Absorption Sample preparation→extraction→centrifugal or filtration→elution→extraction→determination by instrument	GB/T 5009.17-2003 Determination of total and organic-mercury in foods

	Arsenic(As)	cereals - rice: 0.15mg/kg inorganic As; flour: 0.1mg/kg inorganic As; coarse cereals: 0.2mg/kg inorganic As; vegetable: 0.05mg/kg inorganic As; fruit: 0.05mg/kg inorganic As; meat and poultry: 0.05mg/kg inorganic As; eggs: 0.05mg/kg inorganic As; milk powder: 0.25mg/kg inorganic As; fresh milk: 0.05mg/kg inorganic As; legume: 0.1mg/kg inorganic As; alcohol: 0.05mg/kg inorganic As; fish: 0.1mg/kg inorganic As; alga: 1.5mg/kg inorganic As; shellfish, prawn, crab(calculated on fresh weight): 0.5mg/kg inorganic As; shellfish, prawn, crab(calculated on dry weight): 1.0mg/kg inorganic As; other aquatic products(calculated on fresh weight): 0.5mg/kg inorganic As; edible oil: 0.1mg/kg total As; fruit juice and fruit pulp: 0.2mg/kg total As; cocoa butter and chocolate: 0.5mg/kg total As; other cocoa products: 1.0mg/kg total As; sugar: 0.5mg/kg total As	1.The determination of total arsenic 1.1 Hydride Generation-atomic Fluorescence Spectrophotometry Wet digestion or dry ashing→standardard solution preparation→determination by AFS 1.2 Silver salt method Wet digestion or dry ashing→standardard solution preparation→determination by spectrophotometer 1.3 Method of Spot of arsenic Wet digestion or dry ashing→standardard solution preparation→determination by arsenic apparatus 1.4 Borohydride Reduction Colourimetric Method Wet digestion or dry ashing→standardard solution preparation→determination by spectrophotometer 2.The determination of abio-arsenic 2.1 Hydride Generation-atomic Fluorescence Spectrophotometry The extraction of abio-arsenic→standardard solution preparation→determination by AFS 2.2 Silver salt method The extraction of abio-arsenic→standardard solution preparation→determination by spectrophotometer	GB/T 5009.11-2003 Determination of total and inorganic arsenic in foods

	Chrome(Cr)	cereals: 1.0mg/kg; legume: 1.0mg/kg; tubes: 0.5mg/kg; vegetable: 0.5mg/kg; fruit: 0.5mg/kg; meat including liver and kidney: 1.0mg/kg; fish and shellfish: 2.0mg/kg; eggs: 1.0mg/kg; fresh milk: 0.3mg/kg; milk powder: 2.0mg/kg	1.Graphite furnace atomic absorption spectrometry Sample preparation→wet digestion→constant volume→standard solution preparation →determination by atomic absorption spectrophotometer 2.The oscillopolarographic method Sample preparation→standard solution preparation→determination by oscillographic polarograph	GB/T 5009.123-2003 Determination of chromium in foods
	Aluminum(Al)	flour-made products: 100mg/kg	Sample preparation→digestion→standard solution preparation→determination by spectrophotometer	GB/T 5009.182-2003 Determination of aluminium in flour products
	Selenium(Se)	cereals: 0.3mg/kg; legume and legume products: 0.3mg/kg; vegetable: 0.1mg/kg; fruit: 0.05mg/kg; meat and poultry: 0.5mg/kg; kidney: 3.0mg/kg; fish: 1.0mg/kg; eggs: 0.5mg/kg; fresh milk: 0.03mg/kg; milk powder: 0.15mg/kg	1.Hydride Generation-atomic Fluorescence Spectrophotometry Sample preparation→digestion→standard solution preparation→determination by atomic fluorescence spectroscopy 2.Fluorescent method Sample preparation→digestion→extraction →standard solution preparation→determination by fluorescence spectrophotometer	GB/T 5009.93-2010National food safety standard determination of selenium in foods
	Fluorin(Fi)	cereals - rice, flour: 1.0mg/kg, other cereals: 1.5mg/kg; legume: 1.0mg/kg; vegetable: 1.0mg/kg; fruit: 0.5mg/kg; meat: 2.0mg/kg; freshwater fish: 2.0mg/kg; eggs: 1.0mg/kg	1.Diffusion-Fluoring Reagent Colourimetric Analysis Sample preparation→diffusion→extraction and filtration→ determination by visible spectrophotometer 2.Ashing and Distilling-Fluoring Reagent Colourimetric Analysis Sample preparation→fixation of fluorin → ashing → distilling→determination by visible spectrophotometer 3.Fluorine ion selective electrode Sample preparation→standard solution preparation→determination by calomel electrode	GB/T 5009.18-2003 Determination of fluorine in foos

	Benzo(a)pyrene	baked smoked meat: 5μg/kg; vegetable oil: 10μg/kg; cereals: 5μg/kg	1.Fluorescence spectrophotometry Extraction→purification→separation→ determination by Fluorescence spectrophotometry 2.Visual colourimetry Extraction→purification→separation→ determination by ultraviolet light	GB/T 5009.27-2003 Determination of benzo(a)pyrene infoods
	N-nitrosamine	seafood: 4μg/kg N-dimethyl nitrosamine, 7μg/kg N-diethyl nitrosamine; meat products: 3μg/kg N-dimethyl nitrosamine, 5μg/kg N-diethyl nitrosamine	1. Gas Chromatography- Thermal Energy Analyzer（GC-TEA） Extraction→concentration →determination by GC-TEA 2. Gas chromatograph mass spectrometer (GC-MS) Distill→extraction and purification→concentration→determination by GC-MS	GB/T 5009.26-2003 Determination of N-nitrosamines in foods
	Polychlorodiphenyls	marine fish, shellfish, prawn and alga products (edible parts): 2.0mg/kg polychlorodiphenyls, 0.5mg/kg PCB138, 0.5mg/kg PCB153	1.Gas Chromatography/Mass Spectrometry with Isotopic Dilution Method Sample preparation → extraction → purification → separation→concentration→determination by GC-MS 2.Gas Chromatography (GC) Extraction→purification→concentration→ determination by GC	GB/T 5009.190-2006 Determination of indicator polychlorinated biphenyls in foods
	Nitrite	cereals(rice, flour, corn): 3mg/kg; vegetable: 4mg/kg; fish: 3mg/kg; meat: 3mg/kg; eggs: 5mg/kg; picked vegetable: 20mg/kg; milk powder: 2mg/kg; salt(calculated on NaCl): 2mg/kg	1.ion chromatography（IC） Sample preparation →extraction and purification→separation→determination by conductivity detector (CD) 2.spectrophotometry Sample preraration → extraction → purification → determination by spectrophotometer 3.Determination of nitrite and nitrate in dairy products Sample preparation (remove fat and protein) →nitrate reduction→colouration→determination by spectrophotometer	GB/T 5009.33-2010 National food safety standard determination of nitrite and nitrate in foods

	Rare earth	cereals - rice, corn, wheat: 2.0mg/kg; vegetable excluding spinach: 0.7mg/kg; fruit: 0.7mg/kg; peanut kernel: 0.5mg/kg; potato: 0.5mg/kg; mung bean: 1.0mg/kg; tea: 2.0mg/kg	Sample preparation → ashing → dissolution → centrifugal→standard solution preparation → determination by spectrophotometer	GB/T 5009.94-2003 Determination of rare earths in vegetable foods
	Aflatoxin B1	corn, peanut and its products: 20μg/kg; rice, vegetable oil(excluding corn oil & peanut oil): 10μg/kg; other cereals, legume, fermented food: 5μg/kg; infant formula: 5μg/kg	1.Thin-Layer Chromatography (TLC) Extraction→Concentration→Thin-Layer separation→ determination by ultraviolet lamp 2.Competition Enzyme-linked immunosorbent assay（C-ELISA） Extraction→defat→Concentration→ Determination by enzyme-labeled instrument	GB/T 5009.22-2003 Determination of aflatoxin B1 in foods
	Aflatoxin M1	fresh milk: 0.5μg/kg; dairy products(calculated on fresh milk): 0.5μg/kg	Purification→Extraction→Concentration→ Thin-Layer separation→ Determination by ultraviolet lamp	GB/T 5009.24-2010National food safety standard Determination of aflatoxin M1 and B1 in foods
	Deoxynivalenol（DON）	wheat: 1000μg/kg; corn: 1000μg/kg	1.Thin-Layer Chromatography(TLC) Extraction→Purification→Concentration→Thin-Layer separation→Determination by ultraviolet lamp 2.Enzyme-linked immunosorbent assay(ELISA) Exraction→Purification→Concentration→Determination by enzyme-labeled instrument	GB/T 5009.111-2003 Determination of deoxynivalenol in cereal and cereal products
	Patulin	apple and hawthorn products: 50μg/kg	Extraction→Purification→Concentration→Thin-Layer separation→determination by thin layer chromatogram scanner	GB/T 5009.185-2003 Determination of patulin in apple and hawthorn products

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 Noddle		
Std Code	GB17400-2003			LS/T 3211-1995		
Scope	Fried and non-fried instant noodle.			Fried noodle, hot air dried noodle		
Ingredients	Should meet the requirement of relevant standards and regulation.			* Wheat flour should meet its national std * Fry oil should meet Hygiene std of edible oil frying process * Salt should meet its national standard		
Sensory requir'nt	* sould present its specific color; not burned or raw; could have shade of colour on both side. * Have normal smell; No moldy, rancid or other bad smell * Good in shape and pattern; Not foreign object or burned residue. * No broken, stuck after recovery with water; * No half-cooked and teeth-sticking texture.			* sould present its specific color; not burned or raw; could have shade of colour on both side. * No moldy, rancid or other strande smell and tast. * Good in shape and pattern; Not visible impurity. * No broken, stuck after recovery with water; * No half-cooked and teeth-sticking texture.		
Technical Criteria	≤	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	

	Hygienic Standard for Instant Noodle			Industry Standard for Instant Noddle		
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 regualtion. 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		

＜分析法＞　即席めん

Related legislation	Item	Specification	Analytical Methods	Reference
Hygienic Standard for Instant Noodle (GB 17400-2003)	moisture content	Not more than 8g/100g (Fried)	1) direct drying method 2) reduced pressure drying method 3) distillationmethod 4) karl-fischer method	GB 5009.3
		Not more than 12g/100g (Non-fried)		
	Acid value (Count as fat)	Not more than 1.8 KOH/mg/g (Fried)	1) extract fat by petroleum ether (GB/T5009.56) 2) Acid value: potassium hydroxide solution titration Peroxide value: a) potassium iodide solution titration b) ferric thiocyanate colorimetric method Carbonly value: dinitrophenylhydrazine colorimetric method	GB/T5009.56 GB/T 5009.37
	Peroxide value (Count as fat)	Not more than 0.25 g/100g (Fried)		
	Carbonly value (count as fat)	Not more than 20 (meq/kg)		
	Pb	Not more than 0.5 mg/kg	1.Graphite furnace atomic absorption spectrometry Sample preparation→ashing or digesting→standard solution preparation→determination by instrument. 2.Hydride Generation-atomic Fluorescence Spectrophotometry Sample preparation→digestion→standard solution preparation →determination 3.Flame atomic absorption spectrometric analysis(FAAS) Sample preparation→extraction and separation→ determination by instrument 4.Double sulphur hydrazone colorimetry Sample preparation→digestion→standard solution preparation →determination by spectrophotometer 5.Single-sweep polarography Sample preparation→digestion→standard solution preparation →determination by polarographic analyze"	GB 5009.12
	Total As	Not more than 0.5 mg/kg	1.The determination of total arsenic 1.1 Hydride Generation-atomic Fluorescence Spectrophotometry Wet digestion or dry ashing→standardard solution preparation→determination by AFS 1.2 Silver salt method Wet digestion or dry ashing→standardard solution	GB/T 5009.11

			preparation→determination by spectrophotometer 1.3 Method of Spot of arsenic Wet digestion or dry ashing→standardard solution preparation→determination by arsenic apparatus 1.4 Borohydride Reduction Colorimetric Method Wet digestion or dry ashing→standardard solution preparation→determination by spectrophotometer 2.The determination of abio-arsenic 2.1 Hydride Generation-atomic Fluorescence Spectrophotometry The extraction of abio-arsenic→standardard solution preparation→determination by AFS 2.2 Silver salt method The extraction of abio-arsenic→standardard solution preparation→determination by spectrophotometer"	
	Tbc	Not more than 1 000 cfu/g (Fried) Not more than 50 000 cfu/g (Non-fried)	Difference with FDA/BAM, Chapter 3: Aerobic plate count, 2001 - Appropriate enumeration scope of plate counts computed change to 30 cfu ～ 300 cfu from 25 cfu ～ 250 cfu. - Incubate temperature change to 36 ± 1°C from 35 ± 1°C. - 10 times dilution, change to transferring 1ml of previous dilution to 9 ml of diluent from transferring 10ml of previous dilution to 90 ml - do not adopt the Spiral Plate Method"	GB 4789.2
	Coliform group	Not more than 30 MPN/100g (Fried) Not more than 150 MPN/100g (Non-fried)	Difference with FDA/BAM, Chapter 4: Enumeration of *Escherichia coli* and the coliform bacteria, 2002 - Appropriate enumeration scope of plate counts computed change to 15 cfu ～ 150 cfu from 25 cfu ～ 250 cfu. - Incubate temperature change to 36 ± 1°C from 35 ± 1°C. - Sample size change to 25g(or 25ml) form 50g(or 50ml)"	GB 4789.3
	Pathogen	Negative	a) Enrichment with BPW/TTB/SC medium, and confirm through biochemical and serological characteristics. b) Enrichment with GE, HE/SS and EMB agar, and confirm through biochemical and serological characteristics. c) 1) Enrichment and identify with coloration and coagulase test 2) Baird-Parker plate count 3) Staphylococcus MPN count	GB 4789.4 GB 4789.10 GB/T 4789.5 GB/T4789.12
	Peroxide value (count as fat)	Not more than 20 meq/100g (Fried)	1) extract fat by petroleum ether (GB/T5009.56) 2) Acid value: potassium hydroxide solution titration	GB/T5009.56 GB/T

			Peroxide value: a) potassium iodide solution titration b) ferric thiocyanate colorimetric method Carbonly value: dinitrophenylhydrazine colorimetric method	5009.37
PRC Industry Standard for Instant Noddle (LS/T 3211-1995)	Fat	Not more than 24% (Fried)		GB/T 14772
	IoD Value	More than 1.0	Identified by indic colorific mensuration	GB 601 GB/T5009.56
	NaCl	Not more than 2.5%	Titration by standard solution of silver nitrate.	GB 601
	Recovery time	Not more than 4.0 min (Fried)	Place noodle in an insulation container with cover face; Add about five times weight boiling water as many as the noodle; Close the container and time-stamped. When using a piece of glass clamping softening noodles, observe gelatinization state without obvious hard heart, record the recovery time.	
		Not more than 6.0 min (Non-fried)		
	Weight variance	Not more than 3% of declared weight	Weight the packages Noddle three times by 0.5g sensitivity scales; Compared with the declared weight; Claculated deviation	
	Tbc	Not more than 1,000 count/g		GB 4789.2
	Coliform group	Not more than 30 count/100g		GB 4789.3

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 requirment; Packaging; labeling; Storage & transport; test
Description	Beverage charged with external CO2, excluding CO2 generated from fermentation .	Beverage charged with external CO2, excluding CO2 generated from fermentation .
Essential Composition and Quality Factor	● CO2 content ≥ 1.5 ● Juice type: juice content ≥ 2.5%	● 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	● GB2760 and GB14880	● GB2760 for Range and level requirment ● Also meet relative quality standard and regul'n
Contaminant		● GB 2762
Hygiene		● 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	● GB7718 and GB13432. ● Juice type should declare juice content.	
Methods of Analysis	● CO2 content test: 1) Reductor method; 2) Distilling titration	● 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

＜分析法＞　炭酸飲料

Related legislation	Item	Specification	Analytical Methods	Reference
Carbonated Beverages (GB10792)	CO_2 volume	>= 1.5	1) Reductor method; 2) Treated with acid, caustic, and then ditillation, absorb CO_2 with NaOH. Add BaCl then titrate with HCl.	Assay method of CO_2 in Carbonated beverages (GB/T 12143.4)
	Juice content	>= 2.5%	NA	Only for Carbonated Beverages with Juice added
	Sensory evaluation	Should present the colour and taste of main ingredients; without strange taste, bad smell and foreign object.	Visually check	
	Lead	<= 0.3 mg/L	1) Wet degradation methodour Dry incineration method 2) Atomic absorption spectrophotometry 3) Polarographic analysis 4) Dithizone colourimetry method	National food safety standard -- Determin of lead in food (GB5009.12)
	Total Arsenic	<= 0.2 mg/L (as of Arsenic)	1) Wet degradation methodour Dry incineration method 2) Gutzeit methodour Silver diethyldithiocarbamate method 3) Arsenic Stain Measurement method 4) Deox”idiza“tion and colourimetry method	Determination of total arsenic and abio-arsenic in foods (GB5009.11)
	Coper	<= 5 mg/L	1) Atomic absorption spectrophotometry 2) Sodium diethyldithiocarbamate method	Determination of copper in foods (GB5009.13)
	Total plate count	<= 100 cfu/mL	Cultured with PCA culture medium and count	National food safety standard -- Food microbiological examination：Aerobic plate count (GB4789.2)
	Coliform	<= 6 MPN/100mL	1) Coliforms MPN count 2) Coliforms plate count	National food safety standard --Food microbiological examination: Enumeration of coliforms (GB4789.3)

	Mold	<= 10 cfu/mL	Cultured with Rose Bangal Medium and count	National food safety standard Food microbiological examination: Enumeration of moulds and yeasts (GB4789.15)
	Yeast	<= 10 cfu/mL	Cultured with Rose Bangal Medium and count	National food safety standard Food microbiological examination: Enumeration of moulds and yeasts (GB4789.15)
	Pathogen (salmonella)	Negative	Enrichment with BPW/TTB/SC medium, and confirm through biochemical and serological characteristics.	National food safety standard Food microbiological examination: Salmonella (GB4789.4)
	Pathogen (Shigella)	Negative	Enrichment with GE, HE/SS and EMB agar, and confirm through biochemical and serological characteristics.	Microbiological examination of food hygiene--Examination of Shigella (GB4789.5)
	Pathogen (*Staphylococcus aureus*)	Negative	1) Enrichment and identify with colouration and coagulase test 2) Baird-Parker plate count 3) Staphylococcus MPN count	National food safety standard Food microbiological examination: *Staphylococcus aureus* (GB4789.10)

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

＜分析法＞　調理冷凍食品

Related legislation	Item	Specification	Analytical Methods	Reference
GB 19295 <Hygienic standard for quick-frozen and pre-packed food made of wheat flour and rice>	Lead	0.5mg/kg	Dry incineration method→Atomic absorption spectrophotometry	GB 5009.12
	Total arsenic	0.5mg/kg	Dry incineration method→Hydriding→Atomic fluophotometer	GBT 5009.11
	Acid value	3mg/g	Acid value measurement method by titration	GBT 5530
	Peroxide value (for fat)	0.15g/100g	Peroxide value measurement method by titration	GBT 5538
	Total volatile basic nitrogen	15mg/100g	Titration with hydrochloric acid	SCT 3032
	Aflatoxin B1	5μg/kg	Thin-layer chromatography	GBT 5009.22
	Aerobic plate count	3,000,000 cfu/g(raw) 100,000 cfu/g(heated before freezing)	Standard agar medium 36±1.0°C, 48±2h	GBT 4789.2
	Coliform	230MPN/100g (heated before freezing)	Coliform MPN count method: LST broth fermentation tube→gas generation→BGLB broth fermentation	GB 4789.3
	Salmonella	Negative	Agar plate count→serology test	GB 4789.4
	Shigella	Negative	Biochemical test→serology test	GBT 4789.5
	Staphylococcus aureus	Negative	Biochemical test→plasma-coagulase test	GB 4789.10
	Mold	≤50 cfu/g (heated before freezing)	Microscopic examination count method	GB 4789.15
GB 16869<Fresh and frozen poultry product>	Mercury	0.05mg/kg	Dry incineration method→Atomic fluophotometer	
GB 2733<Hygienic standard for fresh and frozen marine products from animal origin>	Cadmium (for fish)	0.1mg/kg	Dry incineration method→Atomic absorption spectrophotometry	GBT 5009.15

3.5　東南アジア（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）

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	輸入・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: MOF）
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）。

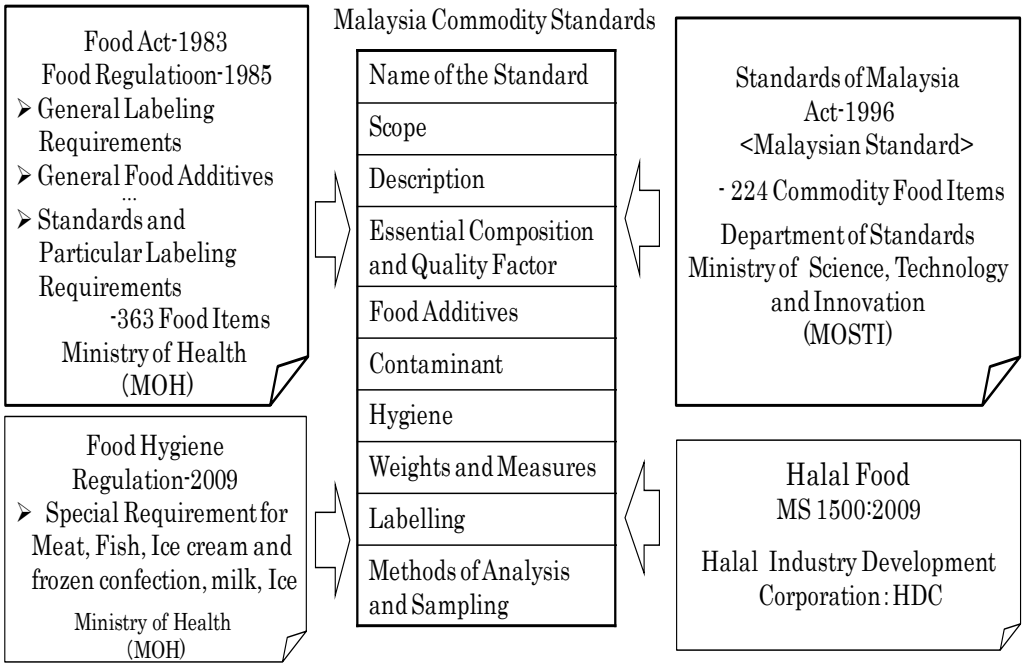


図 3.5-1　個別食品規格に関連する主要法規

3.5.1.3　食品法（保健省（MOH））

（１）食品法-1983[1]（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-1985[2]　（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-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（平成 21 年度報告書 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[3]

食品衛生規則-2009 は、食品取扱い業者のほか、食品施設における行為およ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、また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、氷の取扱い、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。

規格は平成 21 年度報告書 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。

MS は現在 6,000 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（平成 21 年度報告書 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、生鮮野菜や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（平成 21 年度報告書 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。

[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_Hyginene_Regluations_2009.pdf

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　食品一般に関する分析法

食品一般に関しては表 3.5-A1 に、ケーススタディで取り上げた食品に関しては、それぞれ各食品規格表（表 3.5-5～7）の後に別掲した。

3.5.1.7　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-A1　食品一般に関する分析法

Related legislation	Item	Specification	Analytical Methods	Reference
Food Regulations 1985	Incidental constituent	No person shall import prepare or advertise for sale or sell any food containing incidental constituent, except as otherwise specified in regulations 38, 38A, 39, 40 and 41	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD
	Metal contaminant	1. No person shall import prepare or advertise for sale or sell any food, specified in column (1) of Table I to the Fourteenth Schedule which contains the substances set out in the headings to columns (2) to (9) of the said Table in a proportion greater than the maximum permitted proportion specified opposite that food in the columns thereof applicable to the substances。 2. No person shall import, prepare or advertise for sale or sell the food additives specified in column (1) of Table II to the Fourteenth Schedule which contains the substances set out in the headings to column (2) to (8) of the said Table in a proportion greater than the maximum permitted proportion specified opposite that food additive in the columns thereof applicable to the substance.	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD
	3-MCPD	No person shall import prepare or advertise for sale or sell any food, specificied in column (1) of Table I to the Fourteenth A Schedule which contains 3-monochloropropane-1,2-diol (3-MCPD) in a proportion greater than the maximum permitted proportion specified opposite that food in column (2) of the Schedule.		
	Microorganisms and their toxins	1. No person shall import, prepare or advertise for sale or sell any food ready for consumption that is contaminanted with pathogenic microorganisms; 2. No person shall import, prepare or advertise for sale or sell any food, excluding water, specified in column (1) of Table I to the Fifteenth Schedule which contains bacteria in numbers greater than the numbers specified opposite that food in columns (2), (3) and (4) of the said Table for total plate, coliform and Escherichia coli count respectively. 3. No person shall import, prepare or advertise for sale or sell any food which contains the mycological contaminant specified in column (1) of Table II to the Fifteenth Schedule in proportion greater than the proportion specified opposite thereto in column (2) of the said Table.		

	Drug residue	1. No person shall import, sell, expose or offer for sale or delivery, any food intended for human consumption which contains drug residues greater than the amount set out in Table I, to the Fifteenth A Schedule. 2. Notwithstanding subregulation (1), either chlorotetracycline or oxytetracycline may be incorporated in ice used for preserving fresh fish, and unpeeled shrimps, provided that the concentration of one of these drugs shall not exceed 5 parts per million in the product. 3. Notwithstanding subregulation (1) and (2), no person shall import, sell, expose for sale or delivery, any food intended for human consumption which contains the drugs as set out in Table II to the Fifteenth A Schedule.		
	Pesticide residue	No person shall import, prepare for sale or sell any food: a) containing pesticide residue in a proportion greater than the proportion specified for that food in relation to that pesticide residue as set out in the Sixteenth Schedule; b) containing pesticide residue in a proportion greater than the proportion specified for that food in relation to that pesticide residue as recommended in the Codex Alimentarius, where the pesticide is not specified in the Sixteenth Schedule; or c) containing more than 0.01 milligram per kilogram of any pesticide residue, where the pesticide residue is not specified for that food in the Sixteenth Schedule or Codex Alimentarius		

表 3.5-5　ケーススタディ１　即席めん

Standard / Item	Food Regulations 1985 (as at 1st 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	▪ Principally of a cereal meal ▪ May contain carbohydrate foods, egg solids, salt and any other food	▪ 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: 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 (friend and non-fried) ▪ Protein content: 8.5% (fried and non-fried) ▪ Acid value: 2.0 mg KOH/g (fried), Not applicable (non-fried)	▪ 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%
Food Additives	▪ Permitted colouring substance ▪ Transglutaminase, sulphur dioxide or sulphites (as	▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985.	▪ May contain food additives but not contain any added preservatives.

	permitted food conditioner): <200mg/kg ▪ Subject to general requirements concerning food additives.		
Contaminant	▪ 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	▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985.	▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985.
Hygiene	▪ Harmful, damaged packages prohibited ▪ No pathogenic microorganisms ▪ Aflatoxin or any other mycotoxins: <5 µg/kg ▪ Food Hygiene Regulations 2009	▪ 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.	▪ Processed and packed under hygienic conditions.
Weight and Measures	▪ Not specified	▪ Not specified	▪ Not specified
Labelling	▪ 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	▪ The following information shall appear clearly on each package: 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	▪ The following information shall appear clearly on each package: 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

	of the Food Regulations 1985)	Malaysian Food Act 1983 and Food Regulations 1985.	manufacturer's code; ▪ Shall comply with requirements specified in the Malaysian Food Act 1983 and Food Regulations 1985.
Methods of Analysis and Sampling	▪ Additives, contaminants, microorganisms, mycotoxins	▪ Moisture: oven-drying method ▪ Protein content: Kjeldahl method ▪ Acid value: Titrimetric method ▪ Cooking time	▪ Moisture: oven-drying method ▪ Protein content: Kjeldahl method ▪ Ash content: Direct method ▪ Cooking time

＜分析法＞　即席めん

Related legislation	Item	Specification	Analytical Methods	Reference
Food Regulations 1985	Food additives	Permitted colouring substance; transglutaminase: <200 mg/kg; sulphur dioxide: <200 mg/kg; sulphites: <200 mg/kg	International standards (AOAC, ISO, APHA, etc.)	
MS 526:2009 - Instant Noodles - Specification (Second Edition)	Moisture content	10% (Fried); 14% (Non-fried)	MS 526:2009, Appendix A	
	Cooking/soaking time	4 minutes	MS 526:2009, Appendix B	
	Protein content	8.50%	MS 526:2009, Appendix C	
	Acid value	2.0 mg KOH/g (Fried only)	MS 526:2009, Appendix D	
MS 1112:1988 - Instant Beehoon (Intant Rice Vermicelli) - Specification	Moisture content	12%	MS 1112:1988, Appendix A	
	Cooking/soaking time	4 minutes	MS 1112:1988, Appendix B	
	Protein content	5.70%	MS 1112:1988, Appendix C	
	Ash content	1.00%	MS 1112:1988, Appendix D	

表 3.5-6　ケーススタディ２　炭酸飲料

Standard / Item	Food Regulations 1985 (as at 1st 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	▪ Not specified	▪ 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: Comminuted fruit and fruit juices or concentrates – 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. Essential oils and fruit/plant extracts – Essential oils and fruit/vegetable extracts are compounds obtained from fruit or plants and shall be safe for human consumption. ▪ Flavouring substances – Substance either naturally present in fruit/plant or added capable of imparting flavour to the product and shall be safe for consumption.
Food Additives	▪ May contain permitted preservative, permitted colouring substances and permitted food	▪ Acid regulators - The following acids and the sodium, potassium, calcium salt of the acids may be used:

	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.	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	▪ Arsenic (As): <0.1mg/kg ▪ Lead (Pb) : <0.2 mg/kg ▪ Tin (Sn): <40 mg/kg (<250 mg/kg if packed in can) ▪ Mercury (Hg): <0.05 mg/kg ▪ Cadmium (Cd): <1 mg/kg ▪ Antimony (Sb): < 0.15 mg/kg	▪ Metal contaminants: Copper: <1.0 ppm Arsenic: <0.02 ppm Lead: <0.2 ppm
Hygiene	▪ 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	▪ 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	▪ Not specified	▪ Not specified
Labelling	▪ 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	▪ 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;

	ale and root beer. ▪ In the case of soft drink in bottles with applied ceramic labelling, the requirements of regulations 11 and 14 [general requirements for labelling relating to 'Particulars in labelling' and 'Date marking'] 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 – (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 ▪ 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	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.

	"carbonated fruit drink" or "carbonated flavoured drink" as the case may be; or (b) the words "carbonated (state 1the 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 ▪ Nutrition labelling is mandatory (regulation 18B of the Food Regulations 1985)	
Methods of Analysis and Sampling	▪ Additives, contaminants, microorganisms, mycotoxins	▪ Caffeine: HPLC method ▪ Quinine: spectrophotometric method ▪ Ascorbic acid (vitamin c): titrimetric method ▪ Copper, arsenic, lead: Atomic absorption spectophotometric 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

＜分析法＞　炭酸飲料

Related legislation	Item	Specification	Analytical Methods	Reference
Food Regulations 1985	Food additives	Ester gum: <150 mg/l; Beta-cyclodextrin: <500 mg/l; Caffeine-containing plant extract as permitted flavouring substance: <200 mg/l; Sulphur dioxide: <140 mg/l; Benzoic acid: <350 mg/kg; Sorbic acid: <350 mg/kg; 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	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD
	Metal contaminant	Arsenic: <0.1 mg/kg; Lead: <0.2 mg/kg; Tin: <40 mg/kg; Mercury: <0.05 mg/kg; Cadmium: <1 mg/kg; Antimony: <0.15 mg/kg	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD
	Pathogens	No pathogenic microorganisms	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD
	Mycotoxins	Aflatoxin or other mycotoxins: < 5 µg/kg	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD
MS 601:1994 - Specification for ready-to-drink beverages (carbonated and non-carbonated) (first revision)	Caffeine	max: 150 ppm (if used)	MS 601:1994, Appendix A	
	Quinine	40-85 ppm (if used)	MS 601:1994, Appendix B	
	Ascorbic acid	10 mg/100 ml (if used)	MS 601:1994, Appendix C	
	Copper	< 1.0 ppm	MS 601:1994, Appendix D	
	Arsenic	< 0.02 ppm	MS 601:1994, Appendix E	
	Lead	< 0.2 ppm	MS 601:1994, Appendix F	
	Total colony count	<50 cfu per ml	MS 601:1994, Appendix G	
	Viable yeast & moulds	<10 cfu per ml	MS 601:1994, Appendix H	
	Presumptive coliform organisms	negative	MS 601:1994, Appendix J	
	Sulphur dioxide	< 140 ppm	MS 601:1994, Appendix K	
	Benzoic & sorbic acid	< 350 ppm	MS 601:1994, Appendix M	

表 3.5-7　ケーススタディ３　調理冷凍食品

Standard / Item	Food Regulations 1985 (as at 1st September 2009)	MS 1125:2003	MS 1126:2003
Name of the Standard	Food not elsewhere standardized	Meat Frankfurters	Meat Burgers
Scope	▪ Food not elsewhere standardized	▪ 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	▪ Food for which a standard has not been otherwise expressly prescribed by these Regulations.	▪ 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.
Essential Composition and Quality Factor	▪ Not specified	▪ All meat including mechanically deboned meat used shall be obtained from healthy animals slaughtered in a hygienically-managed slaughter-house 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	▪ All meat including mechanically deboned meat used shall be obtained from healthy animals slaughtered in a hygienically-managed slaughter-house 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

		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 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.	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. ▪ 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	▪ Moisture content: max. 60% by wet weight ▪ Total fat content: max. 30% by wet weight ▪ Protein content: min. 15% by wet weight
Food Additives	▪ May contain permitted nutrient supplement, permitted food conditioner, permitted flavouring substance, permitted 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	▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985.	▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985.
Contaminant	▪ 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	▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985.	▪ In accordance with Malaysian Food Act 1983 and Food Regulations 1985.
Hygiene	▪ Harmful, damaged packages prohibited ▪ No pathogenic microorganisms. ▪ Aflatoxin or any other mycotoxins: <5 µg/kg ▪ Food Hygiene Regulations	▪ After processing, frankfurters may be chilled before freezing and the freezing completed at -12^{o}C or lower within 24 hours. The product shall be stored at a temperature bat or below -18^{o}C throughout the storage period. ▪ Prepared and handled under strict hygienic	▪ After processing, the meat burgers may be chilled before freezing and the freezing completed at -12^{o}C or lower within 8 hours. The product shall be stored at a temperature bat or below -18^{o}C throughout the storage period. ▪ Prepared and handled under strict

	2009	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^{o}C for 48h): <10^4 (cooked), <10^5 (raw) per gram ▪ Coliform count (at 37^{o}C for 48h): <50 per gram ▪ E. coli: negative ▪ Salmonellae: negative ▪ S. aureus: negative ▪ Clostridia: negative	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^{o}C for 48h): <2.5 x 10^5 per gram ▪ Coliform count (at 37^{o}C for 48h): <100 per gram ▪ E. coli: negative ▪ Salmonellae: negative ▪ S. aureus: <100 per gram
Weight and Measures	▪ Not specified	▪ Not specified	▪ Not specified
Labelling	▪ 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	▪ Each package shall be suitably labelled with the following: 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	▪ Each package shall be suitably labelled with the following: 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

	article of food of which it is intended to be an imitation or substitute or which it resembles. ▪ 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)	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. ▪ Shall comply with requirements specified in the Malaysian Food Act 1983 and Food Regulations 1985.	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. ▪ Shall comply with requirements specified in the Malaysian Food Act 1983 and Food Regulations 1985.
Methods of Analysis and Sampling	▪ Additives, contaminants, microorganisms, mycotoxins	▪ 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) ▪ Salmonellae: detection (MS 1110:Part 1:1988) ▪ Coliforms and E. coli: detection and enumeration (MS 1110:Part 2:1989) ▪ Mesophilic aerobic plate count: enumeration (MS 1110:Part 3:1989) ▪ S. aureus: detection and enumeration (MS 1110:Part 4:1989) ▪ Clostridia: detection (MS 1110:Part 5:1992)	▪ 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) ▪ Salmonellae: detection (MS 1110:Part 1:1988) ▪ Coliforms and E. coli: detection and enumeration (MS 1110:Part 2:1989) ▪ Mesophilic aerobic plate count: enumeration (MS 1110:Part 3:1989) ▪ S. aureus: detection and enumeration (MS 1110:Part 4:1989) ▪ Clostridia: detection (MS 1110:Part 5:1992)

＜分析法＞　調理冷凍食品

Related legislation	Item	Specification	Analytical Methods	Reference
MS 1125:2003 - Meat Frankfurters - Specifications	Moisture content	Max: 60% by wet weight	MS 954:Part 1:2000	
	Total fat content	Max: 30% by wet weight	MS 954:Part 4:1985	
	Protein content	Min: 11% by wet weight	MS 953:Part 11:1986	
	Sampling	As described in Annex A	MS 1125:2003 Annex A	
	Mesophilic aerobic plate count	$<10^4$ cfu/g (cooked); $<10^5$ cfu/g (raw), 37°C for 48h	MS 1110:Part 3:1989	
	Coliform count	< 50 cfu/g, 37°C for 48h	MS 1110:Part 2:1989	
	Salmonellae	absent per 25g	MS 1110:Part 1:1988	
	E. coli	absent, MPN	MS 1110:Part 2:1989	
	S. aureus	absent, MPN	MS 1110:Part 4:1989	
	Clostridia	absent	MS 1110:Part 5:1992	
MS 1126:2003 - Meat Burgers - Specifications	Moisture content	Max: 60% by wet weight	MS 954:Part 1:2000	
	Total fat content	Max: 30% by wet weight	MS 954:Part 4:1985	
	Protein content	Min: 15% by wet weight	MS 953:Part 11:1986	
	Sampling	As described in Annex A	MS 1126:2003 Annex A	
	Mesophilic aerobic plate count	< 2.5 x 10^5 cfu/g, 37°C for 48h	MS 1110:Part 3:1989	
	Coliform count	< 100 cfu/g, 37°C for 48h	MS 1110:Part 2:1989	
	Salmonellae	absent per 25g	MS 1110:Part 1:1988	
	E. coli	MPN, absent, MPN	MS 1110:Part 2:1989	
	S. aureus	< 100 cfu/g, MPN	MS 1110:Part 4:1989	

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。

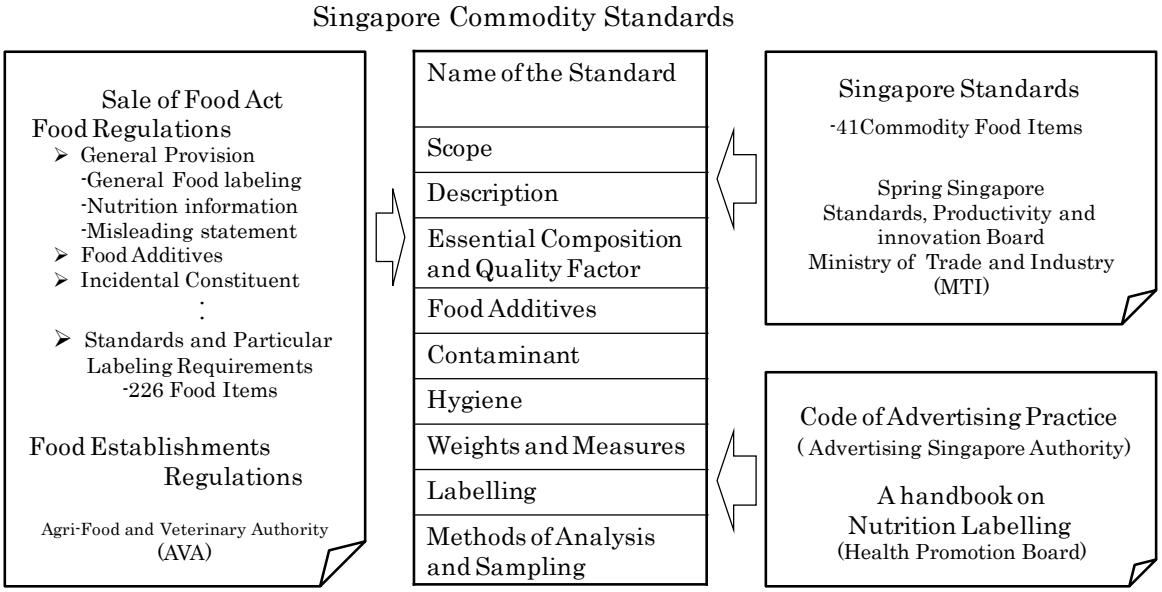


図 3.5-2　食品法規体系と個別食品規格の概要関連図

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-2002[1]（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。

（２）食品規則-2006[2]　(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

[1] Singapore - Sale of Food Act, http://www.ava.gov.sg/NR/rdonlyres/0CA18578-7610-4917-BB67-C7DF4B96504B/8725/Attach59_legislation_SaleofFoodAct.pdf

[2] Singapore – Food Regulations, http://www.ava.gov.sg/NR/rdonlyres/0CA18578-7610-4917-BB67-C7DF4B96504B/11405/FoodRegulations1.pdf

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(平成 21 年度報告書 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-2009[3]（(Food Establishment) Regulations）

食品販売法における食品施設規制は、食品取扱い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)。

規格は平成 21 年度報告書 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。

食品規格策定委員会で策定された SS は 90 件弱で分析法、実施規範等を除いた個別食品規格は 41 品目ある（平成 21 年度報告書 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　食品一般に関する分析法

食品一般に関しては表 3.5-A2 に、ケーススタディで取り上げた食品に関しては、それぞれ各食品規格表（表 3.5-11, -12）の後に別掲した。

3.5.2.6　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

[3] Singapore – Sale of Food (Food Establishment) Regulations, http://www.ava.gov.sg/NR/rdonlyres/0CA18578-7610-4917-BB67-C7DF4B96504B/8729/Attach64_legislation_Sale_FdEstb_rules.pdf

む広範囲の規格が設定されている（表 3.5-12）。

（３）調理冷凍食品

食品規則-2006 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-A2　食品一般に関する分析法

Related legislation	Item	Specification	Analytical Methods	Reference
Food Regulations	Incidental Constituents	No person shall import, sell, advertise, manufacture, consign or deliver any food containing an incidental constituent except as otherwise permitted by these Regulations	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Pesticide residues	1. No person shall import, sell, advertise, manufacture, consign or deliver any article of food containing any pesticide residue other than those specified in column 1, in relation to those articles specified in column 3 and in the proportion specified in column 2 of the Ninth Schedule. 2. Where it is not so provided in these Regulations, the pesticide residue contained in any food shall not exceed the limits as recommended by the Codex Alimentarius Commission. 3. A manufactured or mixed food containing one or more of the foods in which pesticide residues are permitted shall not contain such residues in greater amount than is permitted for the quantity of the foodour foods containing residues used in the preparation of the manufactured or mixed food. 4. No person shall import, sell, advertise, manufacture, consign or deliver any article of food containing the residue of 2 or more of the pest	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Heavy metals, arsenic, lead and copper	No person shall import, sell, advertise, manufacture, consign or deliver any article of food containing arsenic, lead and copper in amounts in excess of those specified in the Tenth Schedule; Tin: <250 ppm; Cadmium: <0.2 ppm; Antimony: <1.0 ppm; Selenium: <1.0 ppm	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Antibiotic residues	No person shall import, sell, advertise, manufacture, consign or deliver any article of food intended for human consumption which contains detectable antibiotic residues or their degradation products (except nisin in the preservation of cheese and canned foods which have been sufficiently heat processed to destroy spores of *Clostridium botulinum*)	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore

表 3.5-11　ケーススタディ１　即席めん

Standard / Item	Food Regulations (as at 1st September 2006)	SS 219:1979
Name of the Standard	Pasta	Dried noodles and pasta products
Scope	▪ 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”).	▪ 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	▪ 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	▪ 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
Food Additives	▪ Permitted flavouring agents ▪ Permitted colouring matters ▪ Subject to general requirements for food additives.	▪ Not specified
Contaminant	▪ 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	▪ Not specified
Hygiene	▪ 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^{o}C for 48 hours: Not more than 1000,000 per mg ▪ Sale of Food (Food Establishments) Regulations	▪ The product shall be suitably packaged to protect the contents from contamination and deterioration under normal conditions of storage and transport.
Weight and Measures	▪ Not specified	▪ Not specified
Labelling	▪ 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)	▪ The packet shall be legibly marked as follows: 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	▪ Food additives, contaminants, microorganisms, mycotoxins	▪ Protein content: Improved Kjeldahl method ▪ Moisture content: Air-oven method ▪ Total solids in gruel ▪ Free fatty acids and peroxide value of extracted oil

＜分析法＞　即席めん

Related legislation	Item	Specification	Analytical Methods	Reference
Food Regulations	Food additives	Permitted flavouring agents & colouring matters	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Metal contaminants	Arsenic: <1.0 ppm; Lead: <2.0 ppm; Copper: <20 ppm; Tin: <250 ppm; Cadmium: <0.2 ppm; Antimony: <1.0 ppm; Selenium: <1.0 ppm	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Mycotoxins	Absence	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Total colony count	< 10^5 cfu/g, 37 ^oC for 48h	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
SS 219: 1979 - Specifications for dried noodles and pasta products	Protein content	> 9% on dry weight basis	SS 219:1979 Appendix A	
	Moisture content	< 13%	SS 219:1979 Appendix B	
	Total solids in gruel	< 8%	SS 219:1979 Appendix C	
	Free fatty acids	< 0.8%	SS 219:1979 Appendix D	
	Peroxide value of extracted oil	10.0 miliequivalents of peroxide oxygen per kg oil	SS 219:1979 Appendix D	

表 3.5-12　ケーススタディ２　炭酸飲料

Standard / Item	Food Regulations (as at 1st September 2006)	SS 62:1997
Name of the Standard	Soft drinks	Carbonated and non-carbonated beverages
Scope	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.	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	Not specified	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^{o}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 ^{o}Brix Fruit juice content – min. 5% Carbonation – 1.5 volume

Food Additives	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.	Acidulants – Include citric acid, tartaric acid, malic acid, lactic acid, phosphoric acid, ascorbic acid, acetic acid, adipic acid, fumaric acid, hydrochloric acid, dl-lactic acid, dl-malic acid, ortho-phosphoric acid and L (+) tartatric acid. Permitted food colours, clouding agents, foaming agents, emulsifying and stabilising agents, and preservatives.
Contaminant	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	Arsenic – <0.1 mg/kg Lead – <0.2 mg/kg Copper – <2 mg/kg
Hygiene	Package or container made with compounds known to be carcinogenic, mutagenic, teratogenic or any other poisonous or injurious substance. Mycotoxins: negative Escherichia coli: 20 per ml Total Count at 37^{o}C for 48 hours: Not more than 100,000 per ml Sale of Food (Food Establishments) Regulations	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	Not specified	Not specified
Labelling	The term “non-alcoholic” shall be reserved only for those products which contain not more than 0.5% (v/v) alcohol at 20^{o}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 the following manner:	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.

	(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. 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	Food additives, contaminants, microorganisms, mycotoxins	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

＜分析法＞　炭酸飲料

Related legislation	Item	Specification	Analytical Methods	Reference
Food Regulations	Food additives	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	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Metal contaminants	Arsenic: <0.1 ppm; Lead: <0.2 ppm; Copper: <2.0 ppm; Tin: <250 ppm; Cadmium: <0.2 ppm; Antimony: <1.0 ppm; Selenium: <1.0 ppm	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Mycotoxins	Absence	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Total colony count	< 10^5 cfu/ml, 37^{o}C for 48h	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	E. coli	< 20 cfu/ml	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
SS 62: 1997 - Specifications for Carbonated and non-carbonated beverages	Sugar content	> 5 Degrees Brix, 20 ^{o}C	SS 62:1997 Appendix A	
	Gas volume	1.5 volume	SS 62:1997 Appendix B	
	Total colony count	< 200 cfu/20ml or <10 cfu/ml	SS 62:1997 Appendix C & D	
	Coliforms	absent per 20 ml or absent per 10 ml	SS 62:1997 Appendix E & F	
	Viable yeasts & moulds	absent per 20 ml or absent per ml	SS 62:1997 Appendix G & H	
	Metal contaminants	Arsenic: <0.1mg/kg; Lead: <0.2 mg/kg; Copper: <2 mg/kg	SS 62:1997 Appendix I, J & K	

3.5.3　フィリピン

フィリピンは憲法（The 1987 Constitution of the Philippines）[1]に、「国家は効果的食品およ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処した最適な健康、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

<table>
<tr><td rowspan="2"></td><td>農産物及び一次加工の
安全・衛生管理</td><td>加工食品の安全・衛生管理</td></tr>
<tr><td>農務省　(Department of Agriculture：DA)</td><td>保健省(Department of Health: MOH)</td></tr>
<tr><td>農産物</td><td>植物産業局(Bureau of Plant Industry: BPI)</td><td rowspan="4">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。</td></tr>
<tr><td>水産物</td><td>水産資源局(Bureau of Fisheries and Aquatic Resources: BFAR)</td></tr>
<tr><td rowspan="2">畜産物</td><td>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）</td></tr>
<tr><td>農水産物基準局(Bureau of Agricultural and Fisheries Product Standard: BAFPS)</td></tr>
</table>

[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。

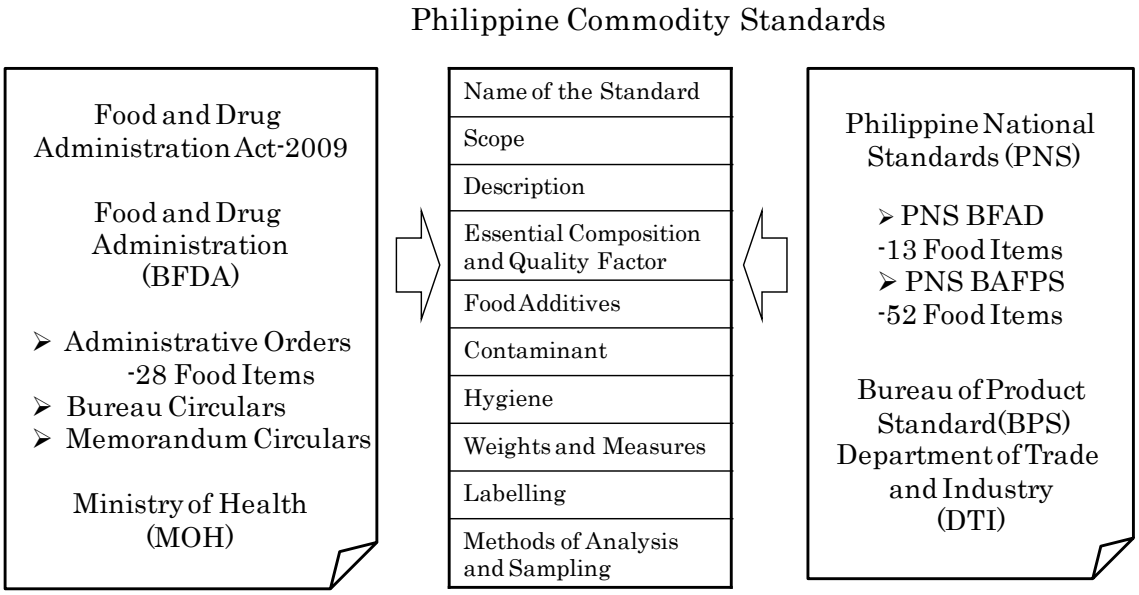


図 3.5-3　フィリピンの個別食品規格と関連法規

（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、化粧品の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 を平成 21 年度報告書 表 3.5-14 に示した。限定された範囲であり、現在、規格化の途上のようである。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 AO, BC で規定されている事例を平成 21 年度報告書 p.98 上段に示す。

[3] http://www.bfad.gov.ph/cfc/pdf.cfm?pdfid=1232
[4] http://www.bfad.gov.ph/default.cfm?CFID=89868&CFTOKEN=85282931#

（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、その事例を平成21年度報告書 表3.5-15に示す。

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（平成21年度報告書 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。

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。平成21年度報告書 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。

3.5.3.3　食品一般に関する分析法

食品一般に関しては表 3.5-A3 に、ケーススタディで取り上げた食品に関しては、それぞれ各食品規格表（表3.5-18, 19）の後に別掲した。

3.5.3.4　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-A3　食品一般に関する分析法

Food Category	Related legislation	Item	Specification	Analytical Methods	Reference
Food in general (Applied to all foods)	FDA Circular 2006-016: Updated list of food additives	Food additives	As specified in the FDA Circular 2006-016	International standards (AOAC, ISO, APHA, etc.)	Email communication with FDA Philippines
	FDA Circular 01-As. 2004: Guidelines for the assessment of microbiological quality of processed foods	Microbiological quality of processed foods	As specified in the FDA Circular 01-As. 2004	International standards (AOAC, ISO, APHA, etc.)	Email communication with FDA Philippines
	FDA Circular 2010-008: Adoption of the Codex Standards on Food Contaminants in Processed Food	Food contaminants	As specified in the FDA Circular 2010-008, following Codex Alimentarius Standards on Food Contaminants	International standards (AOAC, ISO, APHA, etc.)	Email communication with FDA Philippines

表 3.5-18　ケーススタディ１　即席めん

Standard / Item	PNS/BFAD 18:2008
Name of the Standard	Flour sticks (pancit canton)
Scope	■ Processed flour sticks (pancit canton) 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	■ 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 colour, no rancid odour 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 discolouration 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. ■ Odour and flavour: (a) Objectionable odour and flavour indicative of deterioration or contamination (like rancidity, fermentation or taints) on uncooked and cooked noodles; (b) Pronounced burnt odour on uncooked and cooked noodles.
Food Additives	■ 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> NaOH – GMP <u>Antioxidant</u>

	BHA – Max: 100 mg/kg; BHT – Max: 200 mg/kg; Tocopherol – GMP Colour FD&C Yellow #5 (Tartrazine) – Max: 300 mg/kg; FD&C Yellow #6 (Sunset Yellow) - Max: 300 mg/kg Flour treatment agent Phosphates (as Na or K Phosphates) – Max: 2,200 mg/kg Raising agent/stabilizer Na_2CO_3 – Max: 2,600 mg/kg; K_2CO_3 – 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	■ Not specified
Hygiene	■ 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 (Pancit Canton) (PNS 19:2008)". ■ When tested by appropriate methods of sampling and examination: 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	■ 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	■ 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: 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	■ 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

＜分析法＞　即席めん

Related legislation	Item	Specification	Analytical Methods	Reference
PNS/BFAD 18:2008 - Flour sticks (pancit canton)	Sampling	In accordance with FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (CAC/RM-1969)		
	Moisture content	<8%	Oven Method	AOAC (2005, 18th Edition)
	Free fatty acids	< 0.5% (as oleic acid)	Titrimetric Method	AOAC (2005, 18th Edition)
	Net weight	The average net weight of the sample unit may exceed the declared net weight, however, no individual package shall be less than 95% of the declared net weight.	PNS/BFAD 18:2008 Annex C	

表 3.5-19　ケーススタディ２　炭酸飲料

Item \ Standard	PNS/BFAD 11:2007
Name of the Standard	Citrus beverage products
Scope	■ Philippine calamansi (*Microcarpa Bunge*) and dalandan (*Citrus aurantium*) beverages including ready-to-drink (RTD) beverages made from sound and mature calamansi or dalandan preserved exclusively by physical means. Preservation by physical means does not include ionizing radiation. Other citrus cultivars may also be sued 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	■ Basic Ingredients – Citrus: Calamansi or dalandan – fruit to be used shall be fresh, sound, clean and mature from any cultivated variety suitable to the characteristics of the fruits of Microcarpa Bunge or Citrus aurantium 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 calamansi: >2.0, dalandan: >2.50; titrable acidity (as % citric acid) for calamansi: >4.5%, dalandan: >0.7% ■ Soluble solids – the soluble solids content of the extract (exclusive of added sweetening agent/s) for calamansi: >6.0% m/m, for dalandan: >7.0% m/m, as determined by refractometer at 20^{o}C, uncorrected for acidity and read as ^{o}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 (calamansi or dalandan) used. ■ Types of defects – Foreign matters: any matter, which has not been derived from the citrus fruit (calamansi or dalandan), does not pose a threat to human health and is readily recognized without magnification or is present at a level determined by magnification methodour 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	■ 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 erythrobate <u>Colour</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; polyvinylpolypyrrolidone; 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	■ 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	■ 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: 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	■ 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^{o}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	■ Each container shall be labelled and marked with the following information in accordance with current BFAD's Labelling Regulation: a) The name of the product shall be "[Name of citrus fruit + Type of beverages product]" (ex. Calamansi Juice; Dalandan 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	■ 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.

＜分析法＞　炭酸飲料

Related legislation	Item	Specification	Analytical Methods	Reference
PNS/BFAD 11:2007 - Citrus beverage products	pH	pH of extract for calamansi: >2.0, dalandan: >2.50	AOAC Method No. 981.12	AOAC Official Methods of Analysis, 16th Edition, 1995
	Titrable acidity	Titrable acidity (as % citric acid) for calamansi: >4.5%, dalandan: >0.7%	AOAC Method No. 942.15	AOAC Official Methods of Analysis, 16th Edition, 1995
	Total soluble solids	Soluble solids of the extract (exclusive of added sweetening agents) for calamansi: >6.0% m/m, for dalandan: >7.0% m/m, as determined by refractometer at 20C, uncorrected for acidity and read as Degrees Brix on the International Sucrose Scales	AOAC Method No. 932.14C	AOAC Official Methods of Analysis, 16th Edition, 1995
	Alcohol in fruit products	< 3g/kg	AOAC Method No. 920.150	AOAC Official Methods of Analysis, 16th Edition, 1995
	Sampling	In accordance with FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (CAC/RM-1969)		
	Lead	According to maximum limits established by Codex Alimentarius Commission and/or authority for these products	AOAC Method No. 972.25	AOAC Official Methods of Analysis, 16th Edition, 1995
	Tin	According to maximum limits established by Codex Alimentarius Commission and/or authority for these products	AOAC Method No. 985.16	AOAC Official Methods of Analysis, 16th Edition, 1995

3.5.4　インドネシア

3.5.4.1　食品行政

インドネシアの農業関連は農業省、漁業関連は海事漁業省、産業関連は産業省、健康関連は保健省、および国家医薬品食品監督庁の所轄となっている。

3.5.4.2　食品法規体系と個別食品規格

図3.5-4にその関連図を示した。

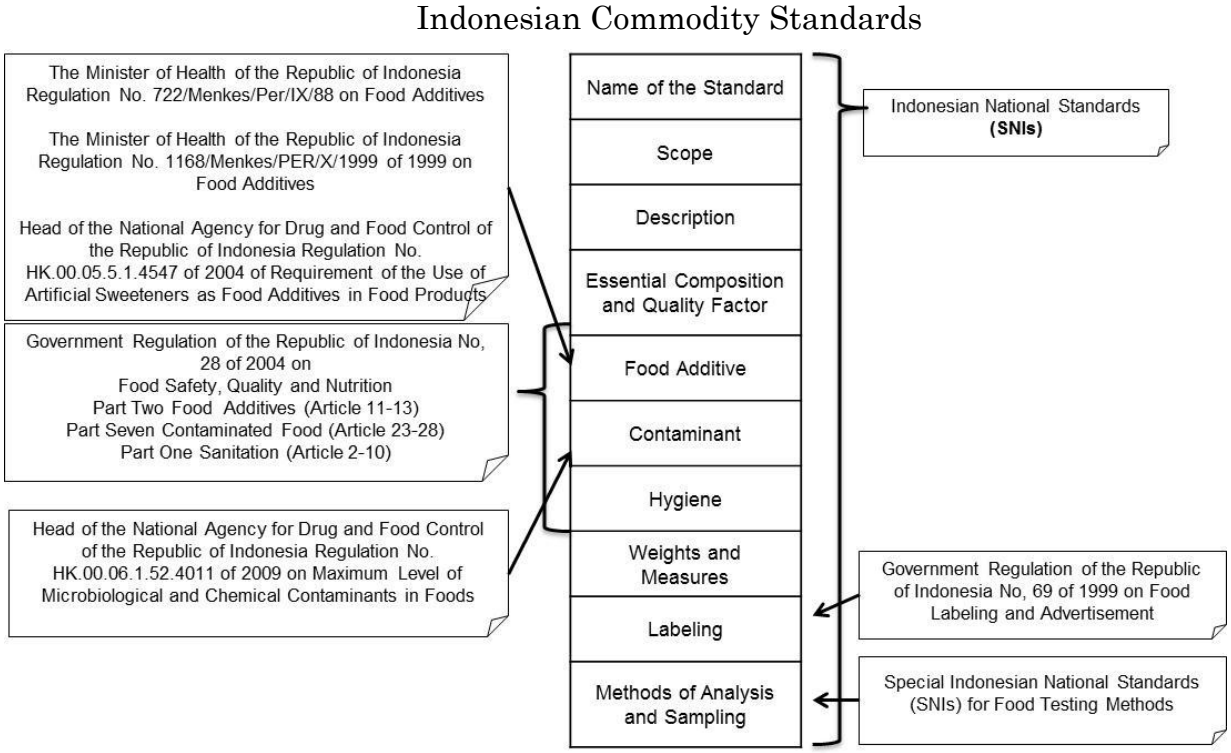


図3.5-4　インドネシアの個別食品規格と関連法規

3.5.4.3　食品関連法規

（1）インドネシア共和国1996年第7号食糧法

インドネシアは1996年に、インドネシア共和国1996年第7号食糧法を発布した。同法における食品の定義は、「人による飲食を意図する、生物および水に由来するすべてのもので、加工されたものと加工されていないものがあり、飲食品の準備、加工および/または製造に用いる食品添加物、基本食材およびその他の材料を含む」としており、以下の4点を適用範囲とする旨明示している。

- 食品に関する技術基準－安全性、品質、栄養および食品表示および広告の規定を対象とする。
- 裁決執行のための法的制裁を含む食品の製造、保管、輸送および/または流通に携わる人の責任（この点には食品の輸出入を含む）
- 食糧自給および消費食品の多様性の達成における政府および社会の役割

・ 国内消費用および輸出用食品の諸特性改善を目指す国内食品産業の育成における政府の役割

（2）食品表示および広告に関するインドネシア政府規定第 69 号（1999 年）

食糧法を食品関連規制の制定の主たる根拠として、インドネシア政府は1999年、食品表示および広告に関するインドネシア共和国政府規定1999年第69号を発布した。条項中の主要点は、(1) 販売目的で包装済み食品を製造し、またはインドネシア国内に輸入する者は、何人といえ、食品包装上に、または包装内にラベルの貼付を行わなければならない。(2) 第1項記載のラベルは剥がしにくく、褪色・損傷しにくい方法で、包装の読みやすい部位に貼付しなければならない。(3) ラベルの文言はインドネシア語、アラビア数字およびアルファベット文字で記載または印刷しなければならない。(4)第2項記載のラベルは、食品に関する情報を示すものとし、少なくとも以下の項目を含まなければならない：

a. 製品名
b. 原材料一覧
c. 正味重量または正味容量
d. 包装済み食品の製造業者、またはインドネシア国内に輸入業者の氏名および住所
e. 賞味期限となる年月日

（3）食の安全、品質、栄養に関するインドネシア政府規定第28号（2004年）

食糧法を根拠として制定されたもう一つの政府規定に、2004年に発布された食の安全、品質、栄養に関するインドネシア政府規定第28号（2004年）がある。

第2条において、食品生産、保存、輸送、流通機能を含む食品チェーンの営業管理責任者は何人といえ現行法制に規定する衛生要件を満たさなければならない旨明示している。さらに、第3条では、食品チェーンすべてにおいて、衛生要件は適正規範ガイドラインを適用して達成しなければならず、これには、(a)適正農業規範、(b)適正生鮮食品生産規範、(c)適正製造規範、(d)適正食品流通規範、(e)適正食品小売規範、および(f)適正調理済食品製造規範が含まれる。

同規定中に定められているその他の衛生要件には、(a)環境が食の安全を脅かす恐れのある土地使用を回避する、(b)食の安全を脅かす生物汚染、動植物病を抑制する、(c)肥料、農薬、病害対策薬剤、成長ホルモン、不適切な動物薬等の使用の結果としての食品中の化学残留物を最低限まで減少させる、(d)食品中の病原体を殺菌し、または阻止し、その他の微生物を減少させる、(e)原材料の選択、食品添加物の使用、加工、包装、保存、輸送などのプロセスを管理する、等が含まれる。

3.5.4.4　インドネシア国家規格（Indonesian National Standards: SNI）

食品規格に関しては、第29条において、国家規格制定分野を管轄する省庁の長（インドネシア国家規格庁）　が食品品質規格を制定すると定められており、これは、現行

の法制によれば、インドネシア国家規格（Indonesian National Standards：SNI）と宣言されている。その書式を表3.5-20に示す。

さらに、第30条1項では、第29条に規定するインドネシア国家規格は、国民の治安、安全、健康、環境持続性、および/または経済面を考慮して、一定の品質規格を満たすものを強制的に課すことができるとしている。第2項では、第1項に記載のインドネシア国家規格の強制は、国家規格所管の省庁の長と協力して所轄大臣・長官がそれぞれの責務と権限に従っておこない、国家医薬品食品監督庁のほか、産業関連は産業省、農業関連は農業省の、漁業関連は海事漁業省の所管となっている。第3項では、第2項に従って強制的に課せられるインドネシア国家規格の適用や適切性の評価に関する全事項は、現行法制に従って行われる旨明示している。第4項では、第1項に規定される食品を生産し、または流通させる者は何人といえ現行法制に従ってインドネシア国家規格を満たさなければならない旨明示している。

表3.5-20　インドネシア国家規格の書式

Name of the Standard
Scope
Normative Reference
Definition
Composition and Quality Requirements
Sampling Method
Testing Methods
Hygienic and Sanitation Practices
Packaging Method
Labelling Requirements
Appendices

食品に関するインドネシア国家規格（SNI）の抜粋リストを表3.5-21に、食品検査法に関するSNIの抜粋リストを表3.5-22に例示する。

表3.5-21　食品に関するインドネシア国家規格(SNI)抜粋リスト

Rice and Wheat Noodles			
1	Instant Rice Noodle SNI 01-3742-1995	4	Dried Noodles SNI 01-2974-1996
2	Rice Noodle SNI 01-2975-2006	5	Noodles SNI 01-6630-2002
3	Wet Wheat Noodles SNI 01-2987-1992	6	Instant Noodle SNI 01-3551-2000
Beverages			
1	Energizer Drink SNI 01-6684-2002	7	Flavoured Fermented Milk Drink SNI 7552:2009
2	Squash Drinks SNI 01-2984-1998	8	Coffee Drinks in Package SNI 01-4314-1996
3	Isotonik Drink SNI 01-4452-1998	9	Traditional Drink Powder SNI 01-4320-1996
4	Nutritious Beverages for Pregnant and or Suckled Mothers	10	Fruit Juice SNI 01-3719-1995

	SNI 01-7148-2005		
5	Packaged Tea Drinks SNI 01-3143-1992	1 1	Mango Fruit Juice SNI 7382:2009
6	Orange Flavour Drink SNI 01-3722-1995	1 2	Orange Flavoured Drink Powder SNI 01-3722-1995
Frozen Seafoods		**Meat**	
1	Frozen Scallop SNI 3230.1:2006	1	Quality of Beef Carcass and Meat SNI 3932:2008
2	Packed Frozen Steamed Crab SNI 3231.1:2010	2	Corned Beef SNI 1-3775-2006
3	Frozen Lobster SNI 3228.1:2010		
Miscellaneous Products			
1	Fish Cracker SNI 2713.1:2009	7	Canned Squid SNI 7317.1:2009
2	Prawn Crackers SNI 2714.1:2009	8	Coffee Powder SNI 01-3542-2004
3	Cooking Oil SNI 01-3741-2002	9	Maltodextrin SNI 7599:2010
4	Chilli Sauce SNI 01-2976-2006	1 0	Wheat Flour for Food SNI 3751:2009
5	Tomato Sauce SNI 01-3546-2004	1 1	Sago Starch Flour SNI 3729:2008
6	Fruit Jam SNI 3746:2008	1 2	White Sugar Crystal SNI 3140.3:2010

表3.5-22　食品検査法に関するインドネシア国家規格(SNI)抜粋リスト

SNI 2897: 2008 **Testing methods for microbiological count in meat, egg, and milk, and their products**		Reference: ▪ USFDA. 2001, 2006. Bacteriologcal Analytical Manual. Division of Microbiology, US Food and Drug Administration, Gaithersburg, USA. ▪ FAO. 1992. Manual of Food Quality Control. Microbiological Analysis, 4th ed., Food and Agriculture Organization, United Nations.	
1	Total plate count (TPC)	5	Salmonella *spp.*
2	Coliform	6	Campylobacter *spp.*
3	*E.coli*	7	*Lysteria monocytogenes*
4	*Staphylococcus aureus*		
SNI 01-2891-1992: Food testing methods		**SNI 19-2896-1998: Metal contaminants testing method in foods** Reference: AOAC, 1995	
SNI 01-2354.5-2006 Determination of Cadmium (Cd) in Fishery Products Reference: ▪ Determination of Metals in Foods by Atomic Absorption Spectrophotometry after Dry Ashing: NMKL, Collaborative Study. Journal of AOAC International, Vol. 83, No. 5: pp 1201-1211 AOAC. 2000. Official Methods of Analysis. 17th ed. Vol. 1, Chapter 9:pp 19-22		**SNI 01-2354.7-2006 Determination of Lead (Pb) in Fishery Products** Reference: ▪ Determination of Metals in Foods by Atomic Absorption Spectrophotometry after Dry Ashing: NMKL, Collaborative Study. Journal of AOAC International, Vol. 83, No. 5: pp 1201-1211 ▪ AOAC. 2000. Official Methods of Analysis. 17th ed. Vol. 1, Chapter 9:pp 19-22	
SNI 2354.10:2009 Determination of Histamin by Spectrofluorimetry and HPLC in Fishery Products Reference:		**SNI 01-2332.1-2006 Determination of Coliform and E. coli in Fishery Products** Reference: ▪ AOAC. 2000. Official Methods of Analysis. 17th	

▪ John.M. Tennyson and R. Steve. Winlers. 2000. Histamin in Seafood: Fluorimetric Method, Fish and Other Marine Products. ▪ AOAC. 2000. Official Methods of Analysis. 17th ed. Vol 1, Chapter 35:pp 17-19	ed. ▪ USFDA. 1998. Bacteriologcal Analytical Manual. 8th ed. Note: SNI 01-2332.2-2006 (Salmonella), SNI 01-2332.3-2006 (TPC), SNI 01-2332.4-2006 (*Vibrio cholerae*), SNI 01-2332.5-2006 (*Vibrio parahaemolyticus*), SNI 01-2332.6-2006 (*Worm parasite*), SNI 01-2332.7-2006 (mold and yeast)
SNI 01-4866-1998: Arsenic testing method in foods Reference: AOAC. 1995. Official Methods of Analysis.	**SNI 01-2354.6-2006 Determination of Mercury (Hg) in Fishery Products** Reference: ▪ AOAC. 2000. Official Methods of Analysis. 17th ed. Vol. 1, Chapter 9:pp 36

3.5.4.5　食品一般に関する分析法

食品一般に関しては表3.5-A4に、ケーススタディで取り上げた食品に関しては、それぞれ各食品規格表（表3.5-23～25）の後に別掲した。

3.5.4.6　ケーススタディ

（１）即席めん

規格はSNI 01-3551- 2000に記載されているものを、分析法は微生物および化学物質の混入に関する項目と、Instant Noodles (Mi Instan)、Snack noodles (Mi makanan ringan)、Instant rice noodles (Bihun instan)のものを記載した（表3.5-23）。

（２）炭酸飲料

規格は栄養飲料（SNI 01-6684-2002）を、分析法は微生物および化学物質の混入に関する項目と、Soda water (Air soda)、Soda (Limun)、Diabetic diet soda (Limun diet diabetes)、Energy drinks (Minimum energy)のものを記載した（表3.5-24）。

（３）調理冷凍食品

規格は冷凍ホタテ貝（SNI 3230.1:2010）を、分析法は微生物および化学物質の混入に関する項目と、Frozen breaded shrimpおよびChicken nuggetのものを記載した（表3.5-25）。

表3.5-A4　食品一般に関する分析法

Related legislation	Item	Specification	Analytical Methods	Reference
Head of the National Agency for Drug and Food Control of the Republic of Indonesia Regulation No. HK.00.06.1.52.4011 of 2009 on Maximum Level of Microbiological and Chemical Contaminants in Food	Microbiological contaminants	As specified in Regulation No. HK.00.06.1.52.4011 of 2009	SNI 01-2891-1992 Analytical Methods for Food and Beverages; SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Metal contaminants	As specified in Regulation No. HK.00.06.1.52.4011 of 2009	SNI 01-2896-1998 Analytical Methods for Metal Contaminants; SNI 01-4866-1998 Analytical Methods for Arsenic	
	Other chemical contaminants	As specified in Regulation No. HK.00.06.1.52.4011 of 2009	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
Joint Decision of Ministry of Health and Ministry of Agriculture No. 881/MENKES/SKB/VIII/1996 on Maximum Residue Limits for Agricultural Products	MRLs for pesticide residues	As specified in Joint Decision No. 881/MENKES/SKB/VIII/1996	Analytical Methods as determined by the Pesticide Commission of the Department of Agriculture, AOAC Methods, and international methods.	
SNI 7313:2008 Maximum Residue Limits for Agricultural Products	MRLs for pesticide residues	As specified in SNI 7313:2008	Analytical Methods as determined by the Pesticide Commission of the Department of Agriculture, AOAC Methods, and international methods.	

表3.5-23　ケーススタディ１　　即席めん

	SNI 01-3551- 2000
Name of the Standard	Instant Noodle
Scope	This standard covers definition, composition and quality requirements, sampling, testing method, hygiene, packaging method and labelling of instant noodle.
Description	Instant noodle is made from a dough of wheat or rice or other flour as main ingredient with or without addition of other materials. It can be treated with alkaline. Pregelatinization process is done before the noodle is dried by frying process or other dehidration process. Note 1 The above definition consists of “mi” (noodle from wheat flour), “bihun” (from rice and sago), “sohun” (from mango bean and or sago) and “kwetiau” (from rice and or wheat flour). Note 2 Instant is indicated by the presence of added spices and it needs a rehydration process to become ready for consumption.
Essential Composition and Quality Factor	Composition Main Raw Materials 1. Wheat flour, rice flour or other flour. 2. Water SNI 01-3751-2000: Wheat flour for foods Other ingredients which can be added 1. Starch and other flour 2. Salt 3. Hydrocolloids 4. Sugar and its derrivatives 5. Fats and oils 6. Permitted food addivitves 7. Permited flavouring agents 8. Spices and spices products 9. Egg and egg products 10. Livestock, poultry, fish and their products 11. Milk and milk products 12. Vegetable and vegetable products

13. Fruit and fruit products
14. Vitamin and mineral

SNI 01-3556-1999: Kitchen salt

Quality Requirements

No.	Testing Criteria	Unit	Requirements
1	Conditions		
1.1	Texture		normal/acceptable
1.2	Aroma		normal/acceptable
1.3	Taste		normal/acceptable
1.4	Colour		normal/acceptable
2	Foreig materials		None
3	Integrity	% w/w	Min 90
4	Moisture content		
4.1	Frying process	% w/w	Max. 10.0
4.2	Drying process	% w/w	Max. 14.5
5	Protein content		
5.1	Noodle from wheat flour	% w/w	Min. 8.0
5.2	Noodle from flour other than wheat flour	% w/w	Min. 4.0
6	Acid value	mg KOH/g of oil	Max. 2.0
7	Metal contaminants		
7.1	Lead (Pb)	mg/kg	Max. 2.0
7.2	Mercury (Hg)	mg/kg	Max. 0.05
8	Arsen (As)	mg/kg	Max. 0.5
9	Microbiological contaminants		
9.1	Total Plate Counts	colony/g	Max 1.0×10^6
9.2	*E. coli*	MPN/g	<3
9.3	Salmonella	-	Negative in 25 g
9.4	Molds	colony/g	Max 1.0×10^3

Food Additives	The Minister of Health of the Republic of Indonesia Regulation No. 722/Menkes/Per/IX/88 on Food Additives The Minister of Health of the Republic of Indonesia Regulation No. 1168/MenKes/PER/X/1999 of 1999 on Food Additives
Contaminant	Head of the National Agency for Drug and Food Control of the Republic of Indonesia Regulation No. HK.00.06.1.52. 4011 of 2009 on Maximum Level of Microbiological and Chemical Contaminants in Foods
Hygiene	Government Regulation of the Republic of Indonesia No. 28 of 2004 on Food Safety, Quality and Nutrition, Part One

	Sanitation (Article 2-10)
Weights and Measures	Government Regulation of the Republic of Indonesia No. 69 of 1999 on Food Labelling and Advertisement
Labelling	Government Regulation of the Republic of Indonesia No. 69 of 1999 on Food Labelling and Advertisement The Head of the National Agency for Drug and Food Control of the Republic of Indonesia Decree No. HK.00.05.52.6291 of 2007 on Nutrition Labelling Reference for Food Products The Head of the National Agency for Drug and Food Control of the Republic of Indonesia Regulation No. HK.00.06.51. 0475 of 2005 on Guideline for Putting Information of Nutrient Value on the Label
Methods of Analysis and Sampling	Sampling Method Sampling in accordance with CAC/RM 42-1969, the FAOMWHO Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL-6.5) Methods of Analysis AOCS official method Cd.3d.63-1993 : Determination of acid value. SNI 01-2891-1992: Food testing methods (conditions, moisture, protein, foreign matters) SNI 19-2896-1998: Metal contaminants testing method in foods SNI 19-2897-1992: Microbiological contaminants testing methods SNI 01-4866-1998 : Arsenic testing method in foods

＜分析法＞　即席めん

Related legislation	Item	Specification	Analytical Methods	Reference
Head of the National Agency for Drug and Food Control of the Republic of Indonesia Regulation No. HK.00.06.1.52.4011 of 2009 on Maximum Level of Microbiological and Chemical Contaminants in Food	Total Plate Count	< 1 x 10^6 cfu/g, 30°C for 72h	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Coliforms	< 100 cfu/g	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Staphylococcus aureus	< 1 x 10^3 cfu/g	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Bacillus cereus	< 1 x 10^3 cfu/g	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Yeast & Moulds	< 1 x 10^4 cfu/g	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Escherichia coli	< 1 x 10^4 cfu/g	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Deoksinivalenol	750 ppb or mcg/kg	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
SNI 01-3551-2000 Instant Noodles (Mi Instan)	Quality characteristics for texture, aroma, taste and colour	Normal/acceptable	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Foreign matter	Not present	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Integrity	Min. 90% W/W	SNI 01-3551-2000 Item 6.1.2	
	Moisture content	Using frying process: 10.0% w/w; Using drying process: 14.5% w/w	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Protein content	Wheat noodles: Min 8.0% w/w; Other noodles: Min 4.0% w/w	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Acid value	Max 2.0 mg KOH/g oil	AOCS Official Method Cd 3d-63, 1993. Determination of acid value.	
	Metal contaminants	Lead: < 2.0 mg/kg; Mercury: <0.05 mg/kg	SNI 01-2896-1998 Analytical Methods for Metal Contaminants	
	Arsenic	< 0.5 mg/kg	SNI 01-4866-1998 Analytical Methods for Arsenic	

	Microbiological contaminants	Total Plate Count: < 1.0 x 10^6 cfu/g; *E. coli*: < 3 MPN/g; Salmonella: absent per 25g; Moulds: < 1.0 x 10^3 cfu/g	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Sampling	In accordance with FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (CAC/RM-1969)		
SNI 01-6630-2002 Snack noodles (Mi makanan ringan)	Quality characteristics for texture, aroma, taste and colour	Normal/acceptable	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Foreign matter	Not present	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Moisture content	Max 7.0% W/W	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Protein content	Min 5.0% W/W	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Acid value	Max 2.0 mg KOH/g oil	SNI 01-6630-2002 Item 6.6	
	Borax	Negative	SNI 01-2358-1991 Determination of borax content in food	
	Prohibited food additives	Negative as described in Minister of Health of the Republic of Indonesia Regulation No. 722/Menkes/Per/IX/88 on Food Additives and Regulation No. 1168/Menkes/PER/X/1999 on Food Additives	SNI 01-2895-1992 Analytical Methods for Colour Additives; SNI 01-2894-1992 Analytical Methods for Food Additives/Preservatives	
	Metal contaminants	Lead: < 1.0 mg/kg; Copper: <10.0 mg/kg; Zinc: < 40.0 mg/kg; Mercury: <0.05 mg/kg	SNI 01-2896-1998 Analytical Methods for Metal Contaminants	
	Arsenic	< 0.5 mg/kg	SNI 01-4866-1998 Analytical Methods for Arsenic	
	Microbiological contaminants	Total Plate Count: < 1.0 x 10^4 cfu/g; *E. coli*: <3 MPN/g; Salmonella: absent per 25g; Moulds: < 1.0 x 10^3 cfu/g	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
SNI 01-3742-1995	Quality characteristics for	Normal/acceptable	SNI 01-2891-1992 Analytical Methods	

Instant rice noodles (Bihun instan)	texture, aroma, taste and colour		for Food and Beverages	
	Foreign matter	Not present	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Integrity	Min. 90% W/W	SNI 01-3742-1995 Item 5.4	
	Cooking time	Max 3 minutes (bihun : water is 1:5)	SNI 01-3742-1995 Item 5.5	
	Moisture content	Max 11.0% W/W	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Ash content (without salt)	Max 2% W/W	SNI 01-3742-1995 Item 5.7	
	Protein content	Min 6% W/W (N x 6.25)	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Acid value	Max 3 mg KOH/100g sample	SNI 01 - 3555 - 1994 Analytical Methods for Fats & Oils	
	Metal contaminants	Lead: < 1.0 mg/kg; Copper: <10.0 mg/kg; Zinc: < 40.0 mg/kg; Mercury: <0.05 mg/kg	SNI 01-2896-1998 Analytical Methods for Metal Contaminants	
	Arsenic	< 0.5 mg/kg	SNI 01-4866-1998 Analytical Methods for Arsenic	
	Microbiological contaminants	Total Plate Count: < 1.0×10^6 cfu/g; *E. coli*: < 3 MPN/g; Moulds: < 1.0×10^3 cfu/g	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Sampling	In accordance with FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (CAC/RM-1969)		
	Prohibited food additives	Negative as described in Minister of Health of the Republic of Indonesia Regulation No. 722/Menkes/Per/IX/88 on Food Additives and Regulation No. 1168/Menkes/PER/X/1999 on Food Additives	SNI 01-2895-1992 Analytical Methods for Colour Additives; SNI 01-2894-1992 Analytical Methods for Food Additives/Preservatives	

表3.5-24　ケーススタディ２　栄養飲料

<table>
<tr><td></td><td colspan="4">SNI 01-6684-2002</td></tr>
<tr><td>Name of the Standard</td><td colspan="4">Energy Drinks</td></tr>
<tr><td>Scope</td><td colspan="4">This standard covers reference, definition, requirements, sampling, testing methods, labelling and packaging for energy drinks</td></tr>
<tr><td>Description</td><td colspan="4">Energy drink is a drink which contains one or more substances easily absorbed by the human body to produce energy with or without permitted food additives
Note: Energy drink is not a food supplement</td></tr>
<tr><td>Essential Composition and Quality Factor</td><td colspan="4">Quality Requirements
<table>
<tr><th>No.</th><th>Testing Criteria</th><th>Unit</th><th>Requirements</th></tr>
<tr><td>1</td><td>Conditions</td><td></td><td></td></tr>
<tr><td>1.1</td><td>Appearance</td><td></td><td>transparent</td></tr>
<tr><td>1.2</td><td>Aroma</td><td></td><td>normal/specific</td></tr>
<tr><td>1.3</td><td>Taste</td><td></td><td>normal/ specific</td></tr>
<tr><td>2</td><td>pH</td><td></td><td>2.5 – 4.0</td></tr>
<tr><td>3</td><td>Total energy</td><td>Kcal/portion</td><td>Min. 100</td></tr>
<tr><td>4</td><td>Total sugar (as saccharose)</td><td>% w/w</td><td>Min. 12.5</td></tr>
<tr><td>5</td><td>Reducing sugar</td><td>% w/w</td><td>Min. 7</td></tr>
<tr><td>6</td><td>Taurine</td><td>mg/portion</td><td>Max. 1000</td></tr>
<tr><td>7</td><td>Caffeine</td><td>mg/portion</td><td>Max. 50</td></tr>
<tr><td>8</td><td>Food Additives</td><td></td><td></td></tr>
<tr><td>8.1</td><td>Artificial sweeteners</td><td></td><td>as SNI 01-0222-1995</td></tr>
<tr><td>8.2</td><td>Preservatives</td><td></td><td>as SNI 01-0222-1995</td></tr>
<tr><td>8.3</td><td>Colouring</td><td></td><td>as SNI 01-0222-1995</td></tr>
<tr><td>9</td><td>Metal contaminants</td><td></td><td></td></tr>
<tr><td>9.1</td><td>Lead (Pb)</td><td>mg/kg</td><td>Max. 0.2</td></tr>
<tr><td>9.2</td><td>Copper (Cu)</td><td>mg/kg</td><td>Max. 2.0</td></tr>
<tr><td>9.3</td><td>Zinc (Zn)</td><td>mg/kg</td><td>Max. 5.0</td></tr>
<tr><td>9.4</td><td>Tin (Sn)</td><td></td><td>Max. 40/250.0*</td></tr>
<tr><td>10</td><td>Arsen contaminant (As)</td><td>Mg/kg</td><td>Max. 0.1</td></tr>
<tr><td>11</td><td>Microbiological contaminants</td><td></td><td></td></tr>
<tr><td>11.1</td><td>Total Plate Counts</td><td>colony/ml</td><td>Max 2.0 x 10^2</td></tr>
<tr><td>11.2</td><td>Coliform</td><td>MPN/ml</td><td>Max. 20</td></tr>
<tr><td>11.3</td><td>E. coli</td><td>MPN/ml</td><td><3</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td>
<table>
<tr><th>No.</th><th>Testing Criteria</th><th>Unit</th><th>Requirements</th></tr>
<tr><td>11.4</td><td>Salmonella</td><td>/25 ml</td><td>negative</td></tr>
<tr><td>11.5</td><td>Staphylococcus aureus</td><td>colony/ml</td><td>0</td></tr>
<tr><td>11.6</td><td>Vibrio sp.</td><td>/ml</td><td>negative</td></tr>
<tr><td>11.7</td><td>Molds</td><td>colony/ml</td><td>Max 50</td></tr>
<tr><td>11.8</td><td>Yeast</td><td>colony/ml</td><td>Max 50</td></tr>
<tr><td></td><td>*packaged in can</td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>Food Additives</td><td>The Minister of Health of the Republic of Indonesia Regulation No. 722/Menkes/Per/IX/88 on Food Additives
The Minister of Health of the Republic of Indonesia Regulation No. 1168/MenKes/PER/X/1999 of 1999 on Food Additives</td></tr>
<tr><td>Contaminant</td><td>Head of the National Agency for Drug and Food Control of the Republic of Indonesia Regulation No. HK.00.06.1.52. 4011 of 2009 on Maximum Level of Microbiological and Chemical Contaminants in Foods</td></tr>
<tr><td>Hygiene</td><td>Government Regulation of the Republic of Indonesia No. 28 of 2004 on Food Safety, Quality and Nutrition, Part One Sanitation (Article 2-10)</td></tr>
<tr><td>Weights and Measures</td><td>Government Regulation of the Republic of Indonesia No. 69 of 1999 on Food Labelling and Advertisement</td></tr>
<tr><td>Labelling</td><td>Government Regulation of the Republic of Indonesia No. 69 of 1999 on Food Labelling and Advertisement

The Head of the National Agency for Drug and Food Control of the Republic of Indonesia Decree No. HK.00.05.52.6291 of 2007 on Nutrition Labelling Reference for Food Products

The Head of the National Agency for Drug and Food Control of the Republic of Indonesia Regulation No. HK.00.06.51. 0475 of 2005 on Guideline for Putting Information of Nutrient Value on the Label</td></tr>
<tr><td>Methods of Analysis and Sampling</td><td>Sampling Method
Sampling in accordance with SNI 19-0428-1993: Guideline for sampling of solid material
Methods of Analysis
Sample preparation as in SNI 01-2891-1992: Food testing methods, point 4.4
Testing of conditions as in SNI 01-2891-1992: Food testing methods, point 1.2
Testing of pH as in SNI 01-2891-1992: Food testing methods, point 16
Testing of moisture, ash, protein, carbohydrate as in SNI 01-2891-1992: Food testing methods
Testing of total sugar as in SNI 01-2891-1992: Food testing methods, point 3.1
Testing of reducing sugar as in SNI 01-2891-1992: Food testing methods, point 2.1
Testing of taurine as in AOAC Official Method 997.05. – 1999 (Annex A)
Tasting of caffeine as in AOAC Official Method 962.13.- 1999. (Annex B))
Testing of artificial sweeteners as in SNI 01-2831-1992: Artificial sweetener testing methods. If saccharin positive, continued with AOAC Official Method 934.04 - 1999. (Annex C.1)
Testing of sorbitol as in AOAC Official Method 973.28 - 1999. (Annex C.3)
Testing of preservative as in SNI 01-2894-1992: Preservative testing method</td></tr>
</table>

	Testing of colouring as in SNI 01-2895-1992: Colouring testing method Testing of metal contaminants as in SNI 01-2896-1998: Testing method of metal contaminants in foods Testing of arsenic as in SNI 01-4866-1998: Testing method of arsenic in foods Testing of microbe as in SNI 01-2897-1992: Testing method of microbiological contaminants

＜分析法＞　炭酸飲料

Related legislation	Item	Specification	Analytical Methods	Reference
Head of the National Agency for Drug and Food Control of the Republic of Indonesia Regulation No. HK.00.06.1.52.4011 of 2009 on Maximum Level of Microbiological and Chemical Contaminants in Food	Microbiological contaminants	Total Plate Count: < 1.0 x 10^2 cfu/ml; Coliforms: < 1 cfu/100ml; *Salmonella sp.*: absent per 100ml; *Staphylococcus aureus*: absent per ml; Yeast & moulds: < 1.0 x 10^2 cfu/ml	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Metal contaminants	Arsenic: < 0.1 ppm; Tin: < 150.0 ppm; Lead: < 0.2 ppm	SNI 01-2896-1998 Analytical Methods for Metal Contaminants; SNI 01-4866-1998 Analytical Methods for Arsenic	
SNI 01-3708-1995 Soda water (Air soda)	Quality characteristics for appearance, aroma and taste	Appearance: clear/colourless; Aroma: odourless; Taste: normal	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Carbon dioxide	3-5 atm (CO_2, 27°C)	SNI 01-3708-1995 Item 5.3	
	Dissolved solids	Max 500 mg/kg	SNI 01-3708-1995 Item 5.4	
	Food additives	Prohibited, except for mineral salts, as per SNI 01-0222-1987 Food Additives	SNI 01-2895-1992 Analytical Methods for Colour Additives; SNI 01-2894-1992 Analytical Methods for Food Additives/Preservatives; SNI 01-3708-1995 Item 5.8 Determining mineral salts as sodium (Na)	
	Metal contaminants	Lead: < 0.2 mg/kg; Copper: < 2.0 mg/kg; Zinc: < 5.0 mg/kg; Mercury: < 0.03 mg/kg; Tin: 40.0, 250.0 (if packaged in can)	SNI 01-2896-1998 Analytical Methods for Metal Contaminants;	
	Arsenic	< 0.1 mg/kg	SNI 01-4866-1998 Analytical Methods for Arsenic	

	Microbiological contaminants	Total Plate Count: < 2.0 x 10^2 cfu/ml; coliforms: < 20 MPN/ml; E. coli: < 3 MPN/ml; *Salmonella sp.*: absent per 100ml; *Staphylococcus aureus*: 0 cfu/ml; Vibrio sp.: Absent per 100ml; *Clostridium perfringens*: Absent per 100ml; Yeast & moulds: < 50 cfu/ml;	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Sampling	As specified in SNI 19-0429-89 Sampling Guidelines for Liquid and Semi-solid Food Products		
SNI 01-2972-1998 Soda (Limun)	Quality characteristics for aroma, taste and colour	Normal	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Sugar content	6-15% W/W (as sucrose)	SNI 01-2892-1992 Analytical Method for Sugars	
	Saccharine & cyclamate	Prohibited	SNI 01-2895-1992 Analytical Methods for Artificial Sweeteners	
	Colour additives	As per SNI 01-0222-1995	SNI 01-2895-1992 Analytical Methods for Colour Additives	
	Preservatives	As per SNI 01-0222-1995	SNI 01-2894-1992 Analytical Methods for Food Additives/Preservatives	
	Carbon dioxide pressure	20-70 psi (at temp. range: 27-30°C)	SNI 01-2972-1998 Item 6.2	
	Metal contaminants	Lead: < 0.2 mg/kg; Copper: < 2.0 mg/kg; Zinc: < 5.0 mg/kg; Tin: 40.0, 250.0 (if packaged in can)	SNI 01-2896-1998 Analytical Methods for Metal Contaminants;	
	Arsenic	< 0.1 mg/kg	SNI 01-4866-1998 Analytical Methods for Arsenic	
	Microbiological contaminants	Total Plate Count: < 2.0 x 10^2 cfu/ml; Coliforms: < 20 MPN/ml; *E. coli*: < 3 MPN/ml; *Salmonella sp.*: absent per 25ml; *Staphylococcus aureus*: 0 cfu/ml; Vibrio sp.: Absent per 25ml; *Clostridium perfringens*: Absent per 100ml; Yeast & moulds: < 50 cfu/ml;	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	

	Sampling	As specified in SNI 19-0429-89 Sampling Guidelines for Liquid and Semi-solid Food Products		
SNI 01-3699-1995 Diabetic diet soda (Limun diet diabetes)	Quality characteristics for aroma, taste and texture	Normal	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Glucose content	Max 0.10% W/W	SNI 01-2892-1992 Analytical Method for Sugars	
	Total energy	As specified on the label	SNI 01-3699-1995 Item 5.3	
	Carbon dioxide pressure	Max 70 psi (27-30°C)	SNI 01-3699-1995 Item 5.4	
	Food additives (Artificial sweeteners, colour additives & preservatives)	As per SNI 01-0222-1987 and its revisions	SNI 01-2895-1992 Analytical Methods for Artificial Sweeteners; SNI 01-2895-1992 Analytical Methods for Colour Additives; SNI 01-2894-1992 Analytical Methods for Food Additives/Preservatives	
	Metal contaminants	Lead: < 0.2 mg/kg; Copper: < 2.0 mg/kg; Zinc: < 5.0 mg/kg; Tin: 40.0, 250.0 (if packaged in can)	SNI 01-2896-1998 Analytical Methods for Metal Contaminants;	
	Arsenic	< 0.1 mg/kg	SNI 01-4866-1998 Analytical Methods for Arsenic	
	Microbiological contaminants	Total Plate Count: < 2.0 x 10^2 cfu/ml; Coliforms: < 20 MPN/ml; E. coli: < 3 /ml; Salmonella: negative; *Staphylococcus aureus*: 0 cfu/ml; Vibrio sp.: negative; Yeast & Moulds: < 50 cfu/ml	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Sampling	As specified in SNI 19-0429-89 Sampling Guidelines for Liquids and Semi-solid Food Products		
SNI 01-6684-2002 Energy drinks (Minimum energy)	Quality characteristics for appearance, aroma and taste	Appearance: clear/colourless; Aroma: normal/typical; Taste: normal/typical	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	pH	2.5 - 4.0	SNI 01-2891-1992 Analytical Methods for Food and Beverages	

	Total energy	Min 100 Kkal/serving	SNI 01-6684-2002 Item 6.4	
	Total sugar	Min 12.5 % W/W (as sucrose)	SNI 01-2892-1992 Analytical Method for Sugars	
	Reducing sugars	Min 7.0% W/W	SNI 01-2892-1992 Analytical Method for Sugars	
	Taurin	Max 1,000 mg/serving	AOAC Official Method 997.05 - 1999	
	Caffeine	Max 50 mg/serving	AOAC Official Method 962.13 - 1999	
	Food additives (Artificial sweeteners, colour additives & preservatives)	As specified in SNI 01-0222-1995	SNI 01-2895-1992 Analytical Methods for Artificial Sweeteners (if saccharine positive, then apply AOAC Official Method 934.04 - 1999; If cyclamate positive, then apply AOAC Official Method 957.10 - 1999; If Sorbitol positive, then apply AOAC Official Method 973.28 - 1999); SNI 01-2895-1992 Analytical Methods for Colour Additives; SNI 01-2894-1992 Analytical Methods for Food Additives/Preservatives	
	Metal contaminants	Lead: < 0.2 mg/kg; Copper: < 2.0 mg/kg; Zinc: < 5.0 mg/kg; Tin: 40.0, 250.0 (if packaged in can)	SNI 01-2896-1998 Analytical Methods for Metal Contaminants;	
	Arsenic	< 0.1 mg/kg	SNI 01-4866-1998 Analytical Methods for Arsenic	
	Microbiological contaminants	Total Plate Count: < 2.0 x 10^2 cfu/ml; Coliforms: < 20 MPN/ml; E. coli: < 3 MPN/ml; Salmonella: negative; *Staphylococcus aureus*: 0 cfu/ml; Vibrio sp.: negative; Yeast & Moulds: < 50 cfu/ml	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Sampling	As specified in SNI 19-0429-89 Sampling Guidelines for Liquid and Semi-solid Food Products		

表3.5-25　ケーススタディ３　冷凍ホタテ貝

<table>
<tr><td></td><td colspan="4">SNI 3230.1:2010</td></tr>
<tr><td>Name of the Standard</td><td colspan="4">Frozen Scallop</td></tr>
<tr><td>Scope</td><td colspan="4">This standard determines specifications which cover hygienic and sanitation technique, food quality and safety requirements of frozen fresh Scallop (Amusium pleuronectes)</td></tr>
<tr><td>Description</td><td colspan="4">Frozen Scallop is a fishery product obtained from live Scallop as raw material which is handled, processed and frozen.</td></tr>
<tr><td>Essential Composition and Quality Factor</td><td colspan="4">Raw Materials and Processing Aids
In accordance with SNI 3230.2:2010 (fresh Scallop) and SNI 3230.3:2010 (processing aids)

Quality Requirements

<table>
<tr><td>No.</td><td>Testing Criteria</td><td>Unit</td><td>Requirements</td></tr>
<tr><td>a.</td><td>Organoleptic</td><td>Value (1-9)</td><td>Min. 7</td></tr>
<tr><td>b.</td><td>Microbiological Contaminants</td><td></td><td></td></tr>
<tr><td></td><td>• Total Plate Count</td><td>colony/g</td><td>Max. 5.0 x 10^5</td></tr>
<tr><td></td><td>• Escherichia coli</td><td>MPN/g</td><td><3</td></tr>
<tr><td></td><td>• Salmonella</td><td>per 25 g</td><td>Negative</td></tr>
<tr><td></td><td>• Vibrio cholerae</td><td>per 25 g</td><td>Negative</td></tr>
<tr><td></td><td>• Staphylococcus aureus</td><td>colony/g</td><td>Max. 1.0 x 10^3</td></tr>
<tr><td>c.</td><td>Chemical Contaminants*</td><td></td><td></td></tr>
<tr><td></td><td>• Cadminum (Cd)</td><td>mg/kg</td><td>Max. 1.0</td></tr>
<tr><td></td><td>• Mercury (Hg)</td><td>mg/kg</td><td>Max. 0.5</td></tr>
<tr><td></td><td>• Lead (Pb)</td><td>mg/kg</td><td>Max. 1.0</td></tr>
<tr><td>d.</td><td>Biotoxine*</td><td></td><td></td></tr>
<tr><td></td><td>• PSP</td><td>□g/kg</td><td>Max. 800</td></tr>
<tr><td></td><td>• DSP</td><td>□g/kg</td><td>Max. 160</td></tr>
<tr><td></td><td>• ASP</td><td>mg/kg</td><td>Max. 20</td></tr>
<tr><td></td><td>*Note: If required by market</td><td></td><td></td></tr>
</table>
Standard for Crackers of Marine and Freshwater Fish, Crustaceae, and Molluscan Shellfish (CODEX STAN 222-2001)</td></tr>
<tr><td>Food Additives</td><td colspan="4">Processing aids used comply with SNI 3230.3: 2010
The Minister of Health of the Republic of Indonesia Regulation No. 722/Menkes/Per/IX/88 on Food Additives</td></tr>
<tr><td>Contaminant</td><td colspan="4">Head of the National Agency for Drug and Food Control of the Republic of Indonesia Regulation No. HK.00.06.1.52. 4011 of 2009 on Maximum Level of Microbiological and Chemical Contaminants in Foods</td></tr>
</table>

<table>
<tr><td></td><td>
<table>
<tr><td>No.</td><td>Testing Criteria</td><td>Unit</td><td>Requirements</td></tr>
<tr><td>1</td><td>Microbiological Contaminants</td><td></td><td></td></tr>
<tr><td></td><td>• Total Plate Count</td><td>colony/g</td><td>Max. 5.0 x 10^5</td></tr>
<tr><td></td><td>• Escherichia coli</td><td>MPN/g</td><td><3</td></tr>
<tr><td></td><td>• Salmonella</td><td>per 25 g</td><td>Negative</td></tr>
<tr><td></td><td>• Vibrio cholerae</td><td>per 25 g</td><td>Negative</td></tr>
<tr><td></td><td>• Staphylococcus aureus</td><td>colony/g</td><td>Max. 1.0 x 10^3</td></tr>
<tr><td>2</td><td>Chemical Contaminants*</td><td></td><td></td></tr>
<tr><td></td><td>• Cadminum (Cd)</td><td>mg/kg</td><td>Max. 1.0</td></tr>
<tr><td></td><td>• Mercury (Hg)</td><td>mg/kg</td><td>Max. 0.5</td></tr>
<tr><td></td><td>• Lead (Pb)</td><td>mg/kg</td><td>Max. 1.0</td></tr>
</table>
</td></tr>
<tr><td>Hygiene</td><td>Government Regulation of the Republic of Indonesia No. 28 of 2004 on Food Safety, Quality and Nutrition, Part One Sanitation (Article 2-10)

Handling and processing of frozen Scallop comply with SNI 3230.3: 2010

Raw materials comply with the freshness, cleanliness, and safety according to SNI 3230.2: 2010

Handling, processing, packaging, storage, distribution, and marketing of frozen Scallop are conducted with containers, methods and equipment according to hygiene and sanitation requirements of fichery products processing unit.</td></tr>
<tr><td>Weights and Measures</td><td>Government Regulation of the Republic of Indonesia No. 69 of 1999 on Food Labelling and Advertisement</td></tr>
<tr><td>Labelling</td><td>Government Regulation of the Republic of Indonesia No. 69 of 1999 on Food Labelling and Advertisement

Each pack of frozen Scallop for market is labeled correctly and easy to read with required languange and comply with label and advertisement requirements. Labelling is in accordance with SNI 3230.3: 2010.</td></tr>
<tr><td>Methods of Analysis and Sampling</td><td>Sampling Method
Sampling in accordance with SNI 2326:2010: Sampling methods of fishery products.
Methods of Analysis

Sensory
SNI 2346: Guideline of organoleptic and or sensory testing of fishery products.

Microbiology
SNI 01-2332.1-2006: Microbiological testing, Chapter 1: Determination of Coliform and Esherichia coli in fishery</td></tr>
</table>

	products. SNI 01-2332.2-2006: Microbiological testing, Chapter 2: Determination of Salmonella in fishery products. SNI 01-2332.3-2006: Microbiological testing, Chapter 3: Determination of Total Plate Count in fishery products. SNI 01-2332.4-2006: Microbiological testing, Chapter 4: Determination of Vibrio cholerae in fishery products. SNI 01-2332.9-2006: Microbiological testing, Chapter 9: Determination of Staphylococcus aureus in fishery products. Chemistry SNI 01-2354.5-2006: Determination of cadmium (Cd) and lead (Pb) in fishery products. SNI 01-2354.6-2006: Determination of mercury (Hg) in fishery products. Biotoxine Association of Official Analytical Chemistry (Paralytic Shellfish Poison), Official Methods of Analysis, 18th Edition, 2005. Chapter 49.10.01 Intergovernmental Oceanographic Commission (Diarrhetic Shellfish Poison). Manual of Harmful Microalgae, UNESCO, 2004. Chapter 13.4.1.2.2 Intergovernmental Oceanographic Commission (Amnestic Shellfish Poison). Manual of Harmful Microalgae, UNESCO, 1995

＜分析法＞　調理冷凍食品

Related legislation	Item	Specification	Analytical Methods	Reference
Head of the National Agency for Drug and Food Control of the Republic of Indonesia Regulation No. HK.00.06.1.52.4011 of 2009 on Maximum Level of Microbiological and Chemical Contaminants in Food	Total Plate Count	< 1 x 10^4 cfu/g	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Coliforms	< 3/g (MPN)	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Salmonella sp.	negative per 25g	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Staphylococcus aureus	negative per g	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
SNI 01-6163-1999 Frozen breaded shrimp	Organoleptic	Min 7 on the hedonic scale (1-9)	SNI 01-2345-1991 Analytical method for organoleptic testing	

	Microbiological contaminants	Total plate count: < 2 x 10^5 cfu/g; *Escherichia coli* <3 MPN/g; Salmonella: absent per 25g; *Vibrio cholerae*: absent per 25g; *Vibrio parahaemolyticus*: < 3 /g (MPN); *Staphylococcus aureus*: < 10^3 cfu/g	SNI 01-2339-1991 Determination of total aerobic plate count in fishery products; SNI 01-2332-1991 Determination of *Escherichia coli* in fishery products; SNI 01-2335-1991 Determination of Salmonella in fishery products; SNI 01-2337-1991 Determination of *Staphylococcus aureus* in fishery products; SNI 01-2341-1991 Determination of *Vibrio cholera* in fishery products; SNI 01-2340-1991 Determination of *Vibrio parahaemolyticus* in fishery products;	
	Filth	0	SNI 01-2372.7-1998 Analytical method for physical testing of fishery products	
	Batter/dough and flour content	50% (weight)	AOAC Official Method No. 971.13 1986	
	Internal temperature	Max -18°C	SNI 101-2378.1-1998 Determination of internal temperature of fish	
SNI 01-6683-2002 Chicken nugget	Quality characteristics for aroma, taste and texture	Aroma: normal/appropriate as per label; taste: normal/appropriate as per label; texture: normal	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Foreign matter	Not present	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Moisture content	Max 60% W/W	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Protein content	Min 12% W/W	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Fat content	Max 20% W/W	SNI 01-2891-1992 Analytical Methods for Food and Beverages	
	Carbohydrate content	Max 25% W/W	SNI 01-6683-2002 Item 6.6	
	Calcium (Ca)	Max 30 mg/kg	AOAC Official Method 975.03, 1990 Metal in Plants. AAS Method, SNI 01-6683-2002 Item 6.7	
	Preservatives & colourings	As specified in SNI 01-0222-1995	SNI 01-2894-1992 Analytical Methods for Food Additives/Preservatives; SNI 01-2895-1992 Analytical Methods for Artificial Sweeteners	

	Metal contaminants	Lead: < 2.0 mg/kg; Copper: < 20.0 mg/kg; Zinc: < 40.0 mg/kg; Tin: < 40.0 mg/kg; Mercury: < 0.03 mg/kg	SNI 01-2896-1998 Analytical Methods for Metal Contaminants;	
	Arsenic	< 1.0 mg/kg	SNI 01-4866-1998 Analytical Methods for Arsenic	
	Microbiological contaminants	Total plate count: < 5 x 10^4 cfu/g; Coliforms: < 10 MPN/g; E. coli: <3 MPN/g; Salmonella: absent per 25g; *Staphylococcus aureus*: < 1 x 10^2 cfu/g	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Sampling	As specified in SNI 19-0428-1993 Sampling Guidelines for Solid Food Products		

3.5.5　タイ

3.5.5.1　食品行政

タイの主要な食品安全・規格・衛生管理行政機関は保健省と農業協同組合省である。

3.5.5.2　食品法規体系と個別食品規格の概要関連図

タイにおける食品規格を定める関連法規の概要を図 3.5-5 に示した。

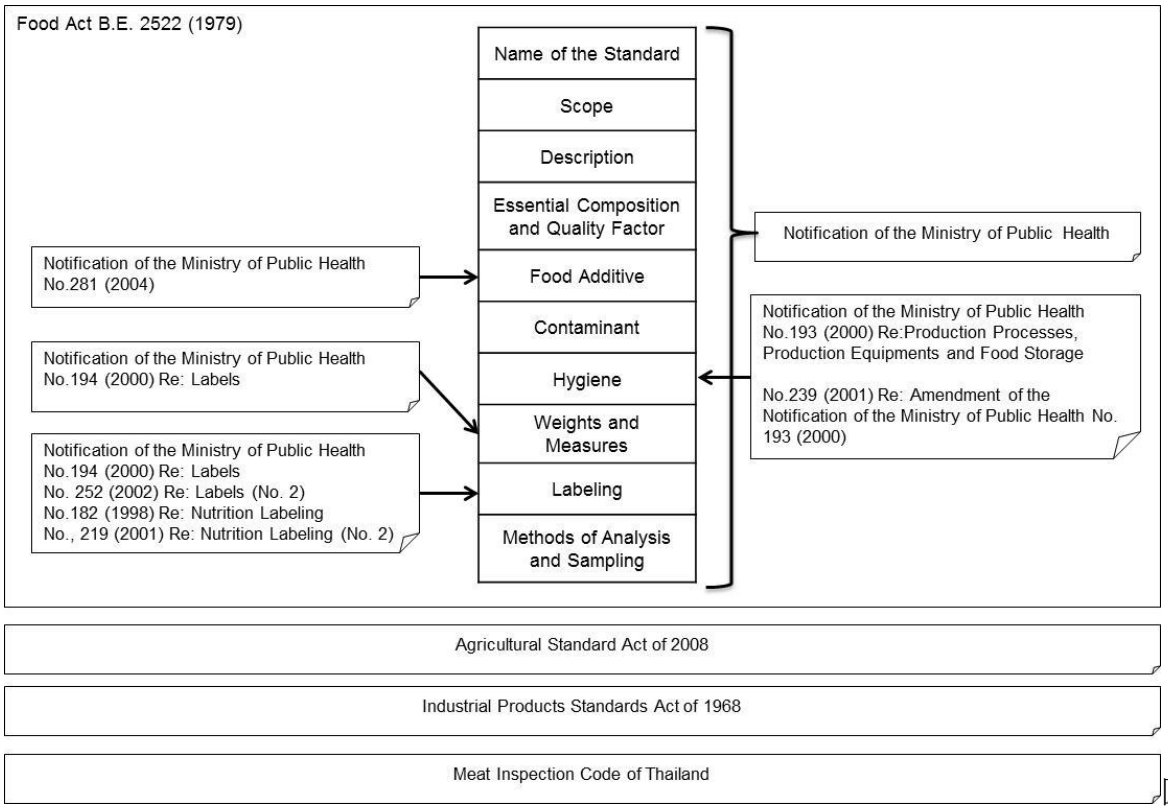


図 3.5-5　タイの食品規格に関連する諸法規

3.5.5.3　食品関連法規

（1）食品法（Food Act）B.E.2522（1979 年）[1]

タイにおいては、食品法 B.E.2522（1979 年）は、食品消費により発生する健康被害から消費者を保護し、健康被害を予防することを目的にした主要な法律である。食品法に基づき、保健省（Ministry of Public Health: MOPH）が本法執行の責務を担う。同法はまた、保健省に省令の発布、食品委員会および権限を有する役員の指名、同法の規定を施行するためのその他の行為を行う権限を付与する。同法は「食品」を生命維持の為の食用に適するものと定義付け、以下を含む：

(A) 形状にかかわらず、飲食ができ、口腔内で溶解、あるいは経口で体内に摂取することが可能な物質であり、薬剤、向精神剤および麻薬物質は含まない。

(B) 食品製造における使用あるいは製造用原材料としての使用を目的とする物質で、食品添加物、着色料および香料・調味料を含む。

[1] 食品法 B.E.2522 http://www.qmaker.com/fda/new/images/cms/top_upload/1141813878_filena.pdf

食品法において、食品は次の4種類に分類される

1) 特定管理食品：登録が義務付けられる分類。標準品質、規格、包装、ラベル表示規定、およびその他のGMP基準に関する法規定がある。現在の分類品目数は14品目。
2) 規格食品：規定により品質規格の定義付けのある分類。本分類の食品は、主として国内の小規模あるいは家内工業で生産される食品である。主要目的は、食品生産者に製品の衛生度の向上あるいは最低でも維持を促し奨励することである。規格食品には登録は義務付けられていないが、その品質およびラベル表示は保健省の告示に指定された規格の要件を満たす必要がある。分類品目数は39品目。
3) 表示管理食品：本分類の食品は消費者への健康被害のリスクが低いため、最初の2分類ほど厳格な管理は必要としない分類。分類品目数は13品目。
4) 一般食品 ：生鮮食品、加熱食品、保存食品、非保存食品、加工食品または非加工食品のいずれかで1、2、3に分類されていないものは一般食品とみなす。一般食品には登録の義務付けはないが、衛生面、安全面、ラベル表示および広告が管理され監視される。

省令には製造許可申請、輸入許可申請、および手数料率、権限を有する役員の身分証明書、輸出食品のラベル表示を含む登録申請の手続きについての記述がある。食品法B.E.2522（1979年）に従って12の省令が公布されている。

（２）農産品規格法（Agricultural Standards Act） B.E.2551（2008 年）[2]

「農産品規格法 B.E.2551（2008 年）」として知られている一般法において、農産品・食品規格基準局（National Bureau of Agricultural Commodity and Food Standards: ACFS）は「農産物、農業、水産、畜産あるいは林業の生産品および副産物」に関する施策の責務を担う。ACFS は農業協同組合省（Ministry of Agriculture and Cooperatives）内に設立された局である。ACFS は以下のものに対して規定を行う。

1) 農産品の生産管理の方法、手順あるいは過程、また品質、化学的、生物学的あるいは物理学的側面における安全性、衛生、植物衛生に関連する農産品の性質、その他関連事項
2) 包装、梱包、商標あるいはラベル表示
3) 1）、2）に関する調査、評価、試験、実験、分析あるいは研究
4) その他、農業協同組合省大臣が官報に告示した必要事項

農産品規格法の施行

農産品規格は 2 種類ある。すなわち：

1) 省令により規制される強制規格
2) 省告示により規制される任意規格

技術委員会は農産品に関する規格の草案作成を行い、農産品規格委員会の承認後、同委員会は、さらに必要性および状況に応じて強制あるいは任意規格を公布する旨、農業協同組合省大臣に推奨する。

[2] http://www.acfs.go.th/km/download/AGRICULTURAL_STANDARDS_ACT.pdf

強制規格および任意規格

- 省令公布により強制規格に規定された農産品の生産者、輸出業者、輸入業者は、事業開始に先立ち ACFS から認証を得る必要がある。認証期間は 3 年間とする。
- 当該者はまた、検査を受け、規格検査の責任機関から強制規格の認証を得なければならない。
- 任意規格に関連する事業には認証は必要とされないが、省令の基準、手順および条件に従って規格検査を申請し、規格検査の責任機関から認証を得ることもできる。

規格認証マーク（Q マーク）

規格認証マークは 2 種類ある。すなわち：

1) 強制規格のための認証マーク
2) 任意規格のための認証マーク

であり、共に、省令で規定するものとする。

Q マーク（認証マーク）

- 強制規格に規定された農産品の生産者、輸出業者、輸入業者は、生産現場や税関から搬出に先立ち、規格マークの提示が求められる。
- 認証マークの申請は、強制規格あるいは任意規格のいずれかの認証の受領者となる生産者、輸出業者、輸入業のみが行える。

（３）工業製品規格法（The Industrial Products Standards Act）

B.E. 2511 (1968)[3]

「工業製品規格法 B.E.2511（1968 年）」として知られている一般法において、タイ国立工業規格研究所（Thai Industrial Standards Institute: TISI）は「工業の促進および開発を目的とした規格化の実施、企業家、消費者および国家全体の利益を最大化」の責務を担う。TISI はタイの国家規格機関として工業省（The Ministry of Industry）内に設立された。TISI は以下を担当する：

1) 工業製品規格法 B.E. 2511 (1968)
2) 閣議決議
3) 工業省の政策および基本計画
4) 政府政策
5) 国家経済社会開発計画

TISI は工業、貿易、国家経済のニーズと成長に即するために、強制および任意両方のタイ工業規格（Thai Industrial Standards：TIS）を開発する。消費者保護、世界市場で競争力を目指す産業促進、環境保護および天然資源の保存に関する政府方針を踏まえて規格は開発され、全工業製品、食品および食品以外の製品が対象となる。

TIS による製品認証

TISI の製品認証スキームは、任意認証マークおよび強制認証マークの 2 種類の異なる認証マークからなる。

任意認証マーク

強制認証マーク

[3] http://www.tisi.go.th/eng/index.php?option=com_content&view=article&id=20&Itemid=6

強制規格の例として、TIS 51-2530 (1987 年)のパイナップル缶詰がある（発効日 1988 年 5 月 5 日）。

2002 年に、工業省は省令 400/2545 号に則り、以下を担当する国内製品規格委員会も指名した。

1) 国家規格の開発および製品品質およびサービスが必要条件および国際慣行を満たすよう監視
2) 国内製品規格の開発および認証機関の提供
3) 国家標準化運動の促進および展開
4) 海外の標準化機構との二国間および多国間で協力
5) 標準化に関する情報提供
6) 標準化の全国的単一ネットワークの構築

国内製品規格は食品および食品以外の製品双方を対象として制定された。中小製造業者の生産および製品の品質を向上されることを目的とする任意規格である。

国内製品マーク

（４）タイの食肉検査条例（The Meat Inspection Code of Thailand）

「食肉処理および販売管理法（Control of Slaughtering and Selling Meat Act）B.E.2535（1992 年）として知られている法令において、畜産振興局（Department of Livestock Development: DLD）は、「食肉および食肉加工品の検査、食肉衛生に関する唯一の国家監視機関」としての責務を担う。DLD は「食肉および食肉加工品の安全および品質基準の設定」を担当する農業協同組合省内に設立された局である。同法令は野生動物を除き、畜牛、ヤギ、羊および豚を対象とする。その後、2002 年に同省は鶏、アヒルおよびガチョウを対象に加えた。本件における関連する製品規格は食肉加工物に関する保健省第 243 号 B.E.2544（2001 年）にも含まれる。

（５）水産物生産における衛生規格

「水産法（The Fishery Act）B.E.2490（1947 年）[4]」によると、水産品および衛生規格に関するデータは不十分である。しかし、タイ国立沿岸養殖研究所（National Institute of Coastal Aquaculture: NICA）が公布した「水産品の生産に関する衛生規格」がある。NICA は農業協同組合省水産局内に設立された研究所である。

[4] http://faolex.fao.org/docs/pdf/tha4931.pdf

表 3.5-26　食品規則による個別食品規格[5]

Notification Number	Title
23 / 2522(1979)	Prescribed Peanut Oil to be Specific Controlled Food and Prescribed Qualities or Standards, Production Processes and Labelling
44 / 2523(1980)	Flour of Husked Rice
56 / 2524(1981)	Palm Oil
57 / 2524(1981)	Coconut Oil
61 / 2524(1981)	Drinking Water in Sealed Container
78 / 2527(1984)	Ice
83 / 2527(1984)	Chocolates
92 / 2528(1985)	Prescribed Quality or Standard for Food Containers, Use of Food Containers and Prohibition of Use of Certain Materials as Food Containers
98 / 2529(1986)	Standard for Foods with Contaminants, which are Sufficiently Supported
100 / 2529(1986)	Label of Finished Gelatin and Jelly
102 / 2529(1986)	Standards of Food Contaminated with Radioactivity
113 / 2531(1988)	Sodium Cyclamate and Foods Containing Sodium Cyclamate
116 / 2531(1988)	Standards of Food Contaminated with Radioactivity (No.2)
117 / 2532(1989)	Feeding Bottle
121 / 2532(1989)	Weight-Control Foods
135 / 2534(1991)	Drinking Water in Sealed Container (No.2)
137 / 2534(1991)	Ice (No.2)
144 / 2535(1992)	Food Packed in Sealed Container
150 / 2536(1993)	Vitaminized Rice
151 / 2537(1994)	Prescribed Prohibited Substances to be Used in Foods
156 / 2537(1994)	Modified Milk for Infant and Modified Milk of follow-up Formula for Infant and Children
157 / 2537(1994)	Food for Infant and Food of Follow-up Formula for Infant and Small Children
158 / 2537(1994)	Supplementary Food for Infants and Young Children
171 / 2539(1996)	Supplementary Food for Infants and Young Children (No.2)
174 / 2539(1996)	Prescribed Prohibited Food to be Imported or Sold
179 / 2540(1997)	Food in Sealed Containers (No.2)
182 / 2541(1998)	Nutrition Labelling
184 / 2543(2000)	Palm oil (No.2)
193 / 2543(2000)	Production Processes, Production Equipments, and Foods Storages
194 / 2543(2000)	Labels
195 / 2543(2000)	Electrolyte Dinks
196 / 2543(2000)	Tea
197 / 2543(2000)	Coffee
198 / 2543(2000)	Soybean Milk in Sealed Containers
199 / 2543(2000)	Mineral Water
200 / 2543(2000)	Sauces in Sealed Containers
201 / 2543(2000)	Some Particular Kinds of Sauces
202 / 2543 (2000)	Food Seasonings Derived from Hydrolysis or Fermentation of Soybean Protein
203 / 2543(2000)	Fish Sauce
204 / 2543(2000)	Vinegar
205 / 2543(2000)	Oil and Fat
206 / 2543(2000)	Butter Oil
207 / 2543(2000)	Margarine
208 / 2543(2000)	Cream
209 / 2543(2000)	Cheese
210 / 2543(2000)	Semi-processed Food
211 / 2543(2000)	Honey

[5] The Notifications of the Ministry of Public Health
http://www.qmaker.com/fda/new/web_cms/subcol.php?SubCol_ID=77&Col_ID=14
http://newsser.fda.moph.go.th/food/Law%20Notification%20of%20Ministry%20of%20PublicHealth07.php (Thai version)

213 / 2543(2000)	Jam, Jelly and Marmalade in Sealed Containers
214 / 2543(2000)	Beverage in Sealed Containers
215 / 2544(2001)	Prescribed Prohibited Foods to be Produced, Imported or Sold
217 / 2544(2001)	Amendment of the Notification of the Ministry of Public Health (No.215) B.E. 2544 (2001)
219 / 2544(2001)	Nutrition Labelling (No.2)
220 / 2544(2001)	Drinking Water in Sealed Containers (No.3)
221 / 2544(2001)	Prescribed Foods to Show Food Serial Number on Food Labels
222 / 2544(2001)	Ice Cream
223 / 2544(2001)	Flavouring Agents
224 / 2544(2001)	Bread
226 / 2544(2001)	Ghee
227 / 2544(2001)	Butter
228 / 2544(2001)	Chewing Gum and Candy
229 / 2544(2001)	Repeal of the Notification of the Ministry of Public Health (No.162) B.E. 2538 (1995)
230 / 2544(2001)	Beverage in Sealed Containers (No.2)
232 / 2544(2001)	Repeal of the Notification of the Ministry of Public Health (No.14) B.E. 2522 (1979)
233 / 2544(2001)	Amendment of the Notification of the Ministry of Public Health (No.23), B.E. 2522 (1979), Prescribed Peanut Oil to be Specific Controlled Food and Prescribed Qualities or Standards, Production Processes, and Labellings
234 / 2544(2001)	Amendment of the Notification of the Ministry of Public Health (No.56) B.E. 2524 (1981), Palm Oil
235 / 2544(2001)	Amendment of the Notification of the Ministry of Public Health (No.57) B.E. 2524 (1981), Coconut Oil
236 / 2544(2001)	Alkaline-preserved Eggs
237 / 2544(2001)	Labelling of Ready-to-Cook Foods and Ready-to-Eat Foods
238 / 2544(2001)	Special Purposed Foods
239 / 2544(2001)	Amendment of the Notification of the Ministry of Public Health (No.193) B.E. 2543 (2000)
243 / 2544(2001)	Meat Products
244 / 2544(2001)	Labelling of Foods Packed Together with Material Intended for Qualities Control Purpose
245 / 2544(2001)	Labelling of Foods Containing Aloe Vera
246 / 2544(2001)	Amendment of the Notification of the Ministry of Public Health (No.217) B.E. 2544 (2001)
247 / 2544(2001)	Prescribed Prohibited Substances to be Used in Foods (No. 2)
248 / 2544 (2001)	Food Seasonings Derived from Hydrolysis or Fermentation of Soybean Protein (No.2)
251 / 2543(2000)	Labelling of Food Obtained through Certain Techniques of Genetic Modification/Genetic Engineering
252 / 2545(2002)	Labels (No.2)
253 / 2545(2002)	Foods in Sealed Containers (No.3)
254 / 2545(2002)	Ice (No.3)
255 / 2545(2002)	Labelling of Foods with Ginkgo biloba Leaves or Extraction from Ginkgo biloba Leaves
256 / 2545(2002)	Drinking Water in Sealed Containers (No.4)
257 / 2545(2002)	Ice Cream (No.2)
259 / 2545(2002)	Application of Methyl Alcohol as Processing Aid in Some Foods
262 / 2545(2002)	Stevioside and Foods Containing Stevioside
263 / 2545(2002)	Prescribed Prohibited Foods to be Produced, Imported or Sold
264 / 2545(2002)	Prescribed Prohibited Foods to be Produced, Imported or Sold
265 / 2545(2002)	Cow's Milk
266 / 2545(2002)	Flavoured Milk
267 / 2545(2002)	Other Milk Products
268 / 2546(2003)	Prescribed Standards for Certain Chemical Contamination in Foods
269 / 2546(2003)	Prescribed Standards for B-Agonist Chemicals Group Contamination in Foods
271 / 2546(2003)	Amendment of the Notification of the Ministry of Public Health (No.260) B.E.

	2545 (2002)
272 / 2546(2003)	Distilled Spirits
273 / 2546(2003)	Standard for Foods with Contaminants (No.2)
275 / 2546(2003)	Distilled Spirits (No. 2)
276 / 2546(2003)	Coffee (No.2)
277 / 2546(2003)	Tea (No.2)
279 / 2546(2003)	Amendment of the Notification of the Ministry of Public Health (No.271) B.E. 2546 (2003)
280 /2547(2004)	Herbal tea
281 /2547(2004)	Food Additives
282 /2547(2004)	Cow's Milk (No.2)
283 /2547(2004)	Prescribed Total Polar Compounds in Used Frying Oil or Cooking Oil
284/2547(2004)	Drinking Water in Sealed Containers (No.5)
285 /2547(2004)	Ice (No.4)
286 /2547(2004)	Modified Milk for Infants and Modified Milk for follow-up Formula for Infants and Children (No.2)
287 /2548(2005)	Infant food and Food of Follow-up Formula for Infants and Young Children (No. 3)
288 / 2548(2005)	Foods with Toxic Residues
289 / 2548(2005)	Fermented Milk
290 / 2548(2005)	Beverage in Sealed Containers (No.3)
292 / 2548(2005)	Prohibited Foods to be Produced, Imported or Sold
293 / 2548(2005)	Dietary Supplement
294 / 2548(2005)	Royal Jelly and Royal Jelly Products
295 / 2548(2005)	Prescribed Qualities or Standards for Containers Made from Plastic
296 / 2549(2006)	Foods with Risk from Bovine Spongiform Encephalopathy
298 / 2549(2006)	Production Processes, Production Equipments, and Storage of Ready-to-Consume Milk Products in Liquid Form which Passed Through Pasteurization Heat Treatment
299 / 2549(2006)	Prescribed Standards for Certain Chemical Contamination in foods (No.2)
300 / 2549(2006)	Appointment of Competent Officers for the Execution of the Food Act B.E. 2522 (1979)
301 / 2549(2006)	Food Packed in Sealed Container (No.4)
303 / 2550(2007)	Veterinary Drug Residues in Foods
305 / 2550(2007)	Labelling of Certain Kinds of Ready-to-Eat Foods
307 / 2550(2007)	Modified Milk for Infant and Modified Milk of Follow up Formula for Infant and Young Children (No.3)
308 / 2550(2007)	Infant Food and Food of Follow-up Formula for Infants and Young Children (No.4)
309 / 2550(2007)	Dietary Supplements (No.2)
310 / 2551(2008)	Prohibition of Production, Importation or Sales of Foods Containing Other Non-Food Items or Objects in the Container and Packaging
311 / 2551(2008)	Prescribed Prohibited Food to be Produced, Imported of Sold
- / 2552 (2009)	Food Standard on Pathogens
- / 2552 (2009)	Distilled Spirits
- / 2553 (2010)	Drinking Water in Sealed Containers (No.6)
- / 2553 (2010)	Food Seasonings Derived from Hydrolysis or Fermentation of Soybean Protein
- / 2553 (2010)	Amendment of the Notification of the Ministry of Public Health (No.193) B.E. 2543 (2000)
- / 2553 (2010)	Amendment of the Notification of the Ministry of Public Health (No.220) B.E. 2544 (2001)
- / 2553 (2010)	Amendment of the Notification of the Ministry of Public Health (No.298) B.E. 2549 (2006)
- / 2553 (2010)	Iodized Salt
- / 2553 (2010)	Food Seasonings Derived from Hydrolysis or Fermentation of Soybean Protein (No.2)
- / 2553 (2010)	Fish Sauce (No.2)
- / 2553 (2010)	Brine for Cooking
- / 2553 (2010)	Irradiated Foods

3.5.5.4　食品一般に関する分析法

タイの全食品を対象とする食品一般の分析法は、Food Act B.E. 2522 (1979)に従うとされる。ケーススタディで取り上げた食品に関しては、それぞれ各食品規格表（表3.5-27, 28）の後に別掲した。

3.5.5.5　ケーススタディ

（１）即席めん

規格は Semi-processed food（Notification of the Ministry of Public Health No. 210 B.E. 2543 (2000)）を、分析法も Notification of the Ministry of Public Health No. 210 B.E. 2543 (2000)に記載されている項目を表記した（表 3.5-27）。

（２）炭酸飲料

規格は Beverages in sealed container（Notification of Ministry of Public Health No. 214 B.E. 2543 (2000)）を、分析法も Notification of Ministry of Public Health No. 214 B.E. 2543 (2000)に記載されている項目を表記した（表 3.5-28）。

（３）調理冷凍食品

タイの食品関連法規に、加工冷凍食品に関する規格基準は無い。加工冷凍食品の基準に関しては、微生物的品質、食品添加物等の特定の事項に関する相応する規格で管理される。

表 3.5-27　ケーススタディ１　即席めん

Standard / Item	Notification of the Ministry of Public Health No. 210 B.E. 2543 (2000)
Name of the Standard	Semi-processed food
Scope	Semi-processed food is classified into 4 types as follows: 1. Noodle, a sheet of rice noodle (Guay-Jub), wheat noodle, rice vermicelli and mung bean vermicelli 2. Kao Tom (Boiled rice) and Joke (Porridge rice). 3. Broth and concentrated soup in cube, powdered or dried form. 4. Curries and curry pastes.
Description	▪ Semi-processed Foods means food which has been passed through partially cooked processes, and can be consumed after passing simple cooked processes in short time, such as filling hot water, boiling or adding other food.
Essential Composition and Quality Factor	Noodles shall be of the qualities or standards as follows: 1. Free of rancid odour. 2. Moisture content not more than 10% by weight, in case being fried with oil and not more than 13% by weight, in case made from other process. 3. Protein not less than 8.5% by weight for wheat noodle. 4. Free of pathogenic microorganisms. Bacillus cereus not more than 100 per 1 g of food. 5. Free of toxic substances released by microorganisms in quantity which may be hazardous to health. 6. Escherichia coli shall be found less than 3 per 1 g. of food by Most Probable Number Method. 7. Bacteria not more than 10,000 per 1 g. of wheat noodle and not more than 30,000 per 1 g. of noodle, a sheet of rice noodle (Guay-Jub), rice vermicelli and mung bean vermicelli. 8. Mold not more than 100 per 1 g of food.
Food Additives	▪ In accordance to the notification of the Ministry of Public Health No. 281 (2004) Re: Food additives
Contaminant	▪ Not specified
Hygiene	▪ Semi-processed Foods producers or importers for sales shall follow to the notification of the Ministry of Public Health No.193 (2000) Re: Production processes, production equipments and foods storages.
Weight and Measures	▪ The net content by weight in metric system
Labelling	▪ Labelling of semi-processed foods shall be labeled and marked with the information according to the notification of the Ministry of Public Health No. 194 (2000) Re: Labels ▪ Labels of foods to be sold to consumers must be expressed in Thai language alphabets, but may contain some foreign language alphabets which are acceptable and must be expressed of the following declarations, except for the exception from the Food and Drug Administration:

	1. Name of food. 2. Food serial number. 3. Names and addresses of producers or re-packers of food which is produced within the country, names and addresses of importers and country of producers as the case may be. For foods which are produced within the country, names and addresses of head office of producers or re-packers may be expressed instead. 4. The net content by weight in metric system 5. Main ingredients shall be expressed by percentage of approximate weight. 6. Declaration of “Utilizing preservatives” for any usage. 7. Declarations of “Natural colour” or “Artificial colour” for any usage cases. 8. Declaration of “Utilize of .....for flavour enhancer” (the blank is for the name of flavour enhancer used.) 9. Declaration of “Utilize of .....as food artificial sweetener” (the blank is for the name of artificial sweetener.) by alphabets of not smaller than 2 millimeter height and colour of the text shall be highly contrast with the background of the label. 10. Declarations of “Natural flavour”, “Identical artificial flavour”, or “Artificial flavour” as the applicable case. 11. Declarations of date, month and year of manufacture; month and year of manufacture; date, month and year of expiry; or date, month and year within which food remains in good quality or conforms to the standard 12. Instruction for food storage. (If any) 13. Food preparation method for consumption. (If any)
Methods of Analysis and Sampling	▪ Methods of sampling – shall be in accordance with those of the FAO/WHO Codex Alimentarius

＜分析法＞　即席めん

Related legislation	Item	Specification	Analytical Methods	Reference
Notification of the Ministry of Public Health No. 210 B.E. 2543 (2000)	Moisture content	Not more than 10% by weight, in case being fried with oil, and not more than 13% by weight, in case made from other process	Drying: oven or vacuum	AOAC standard method
	Protein	Not less than 8.5% by weight for wheat noodle	Kjeldahl	AOAC standard method
	Bacteria	Not more than 10,000 per 1 g of wheat noodle		Bacteriological Analytical Manual,
	Pathogenic microorganisms	Free from pathogenic microorganisms		Bacteriological Analytical Manual,
	Bacillus cereus	Not more than 100 per 1 g of food		Bacteriological Analytical Manual,
	Escherichia coli	Less than 3 per 1 g of food	Most Probable Number Method	Bacteriological Analytical Manual,
	Mold	Not more than 100 per 1 g of food		Bacteriological Analytical Manual,
	Toxic substances released by microorganisms	Free of toxic substances released by microorganisms in quantity which may be hazardous to health		
	Food Additives	Notification of the Ministry of Public Health No. 281 (2004) Re: Food additives	Depending on specific additives used	
	Contaminant	Not specified		

表 3.5-28　ケーススタディ２　炭酸飲料

Standard / Item	Notification of Ministry of Public Health No. 214 B.E. 2543 (2000)
Name of the Standard	Beverages in sealed container
Scope	Beverages in Sealed Containers is prescribed to be specific controlled food, can be classified into 5 categories as follows: 1. Water with dissolved carbon dioxide or oxygen gas. 2. Beverage, which is containing or made from fruits, plants or vegetables, and may also contain dissolved carbon dioxide or oxygen gas. 3. Beverage, which is containing or made from other constituents, except fruits, plants or vegetables, and may also contain dissolved carbon dioxide or oxygen gas. 4. Beverage as stipulated in (2) or (3), which is concentrated and needs to be diluted before consumption. 5. Beverage as stipulated in (2) or (3) in dried form.
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	1. Odour and flavour inherent to specific characteristics of that beverage. 2. Free of sediment, except sedimentation naturally occurring from ingredients. 3. Water to be used in production shall follow to qualities or standards in the notification of the Ministry of Public Health, Re: Drinking water in Sealed Containers. 4. Coliform bacteria shall be found less than 2.2 per 100 ml. of beverage by Most Probable Number Method. 5. Free of Escherichia coli. 6. Free of pathogenic microorganisms. 7. Free of toxic substances released by microorganisms or other toxic substances in quantity which may be hazardous to health. 8. Free of yeast and mold 9. Natural alcoholic content from ingredients or alcohol used in production process, the total quantity of alcohol shall be not more than 0.5% by weight. In necessary case where total quantity of alcohol is higher than prescription, such matters must be approved by the Food and Drug Administration. Methyl alcohol shall not be used in production process.
Food Additives	Artificial sweetener shall follow the Food Standard of Joint FAO/WHO Codex Re: Food additives, and the amended version, and may be used in single or combination with sugar. In case where no standards is prescribed in the first phrase, the Food and Drug Administration shall prescribe according to an approval of the Food Committee.
Contaminant	Free of contaminants, except the followings: ▪ Arsenic not more than 0.2 mg per 1 kg of beverage. ▪ Lead not more than 0.5 mg per 1 kg of beverage.

	▪ Copper not more than 5 mg per 1 kg of beverage. ▪ Zinc not more than 5 mg per 1 kg of beverage. ▪ Iron not more than 15 mg per 1 kg of beverage. ▪ Tin not more than 250 mg per 1 kg of beverage. ▪ Sulfur dioxide not more than 10 mg per 1 kg of beverage.
Hygiene	▪ Prepared and handled in accordance to the notification of the Ministry of Public Health No.193 (2000) Re: Production processes, production equipments and foods storages.
Weight and Measures	▪ The net volume in metric system
Labelling	▪ Labels for beverage shall follow to the notification of the Ministry of Public Health No. 194 (2000), Re: Labels 1. Name of food. 2. Food serial number. 3. Names and addresses of producers or re-packers of food which is produced within the country, names and addresses of importers and country of producers as the case may be. For foods which are produced within the country, names and addresses of head office of producers or re-packers may be expressed instead. 4. The net volume in metric system 5. Main ingredients shall be expressed by percentage of approximate weight 6. Declaration of “Utilizing preservatives” for any usage. 7. Declarations of “Natural colour” or “Artificial colour” for any usage cases. 8. Declaration of “Utilize of .....for flavour enhancer” (the blank is for the name of flavour enhancer used.) 9. Declaration of “Utilize of .....as food artificial sweetener” (the blank is for the name of artificial sweetener.) by alphabets of not smaller than 2 millimeter height and colour of the text shall be highly contrast with the background of the label. 10. Declarations of “Natural flavour”, “Identical artificial flavour”, or “Artificial flavour” as the applicable case. 11. Declarations of date, month and year of manufacture; month and year of manufacture; date, month and year of expiry; or date, month and year within which food remains in good quality or conforms to the standard 12. Instruction for food storage. (If any)
Methods of Analysis and Sampling	▪ Methods of sampling – shall be in accordance with those of the FAO/WHO Codex Alimentarius

＜分析法＞　炭酸飲料

Related legislation	Item	Specification	Analytical Methods	Reference
Notification of Ministry of Public Health No. 214 B.E. 2543 (2000)	Coliform bacteria	Less than 2.2 per 100 ml. of beverage	Most Probable Number Method	Bacteriological Analytical Manual,
	Escherichia coli	Free of *Escherichia coli*		Bacteriological Analytical Manual,
	Pathogenic microorganisms	Free from pathogenic microorganisms		Bacteriological Analytical Manual,
	Yeast and mold	Free of yeast and mold		Bacteriological Analytical Manual,
	Toxic substances released by microorganisms	Free of toxic substances released by microorganisms in quantity which may be hazardous to health		
	Alcohol	Not more than 0.5% by weight		
	Free of contaminants, except the followings:			
	* Arsenic	Not more than 0.2 mg per 1 kg of beverage	Atomic absorption	
	* Lead	Not more than 0.5 mg per 1 kg of beverage	Atomic absorption	
	* Copper	Not more than 5 mg per 1 kg of beverage	Atomic absorption	
	* Zinc	Not more than 5 mg per 1 kg of beverage	Atomic absorption	
	* Iron	Not more than 15 mg per 1 kg of beverage	Atomic absorption	
	* Tin	Not more than 250 mg per 1 kg of beverage		
	* Sulfur dioxide	not more than 10 mg per 1 kg of beverage	Optimized Monier-Williams	

3.5.6　ベトナム

3.5.6.1　　食品行政（食品安全管理）

ベトナムでは食品安全の管理責任は国レベルの各省および地方レベルでは人民委員会の間で分担されており、保健省（Ministry of Health: MOH）、農業農村開発省（Ministry of Agriculture and Rural Development: MARD）および産業通商省（Ministry of Industry and Trade: MIT）も含まれる。

食品安全法によると、国家レベルでは保健省が食品安全における国の政策の立案およびその実施の調整を含む食品の安全管理において中心的役割を担う。地方および農村レベルでは、その責務は人民委員会が担う。保健省には、食品（生鮮および加工食品など）、食品包装用器具、食品包装および食品容器の食品安全に関連する国家技術規定公布に対する責任もある。同省には政策を立て、加工食品セクター（食品添加物、食品加工助剤、瓶入り飲料水、ナチュラルミネラルウォーターおよび機能性食品など）の食品安全を管理する権限が付与されている。保健省の権限範囲内で、これらの責務はベトナム食品局（Vietnam Food Administration: VFA）に委任されている。保健省はまた、製品・商品品質法に準拠して食品品質に対する責務も負う。

農業農村開発省は一次産品セクター（シリアル、肉・肉製品、水産動物・水産動物製品、野菜・根菜・果物およびその製品、卵・卵製品、生乳、蜂蜜・蜂蜜製品、遺伝子組換え食品、食塩およびその他農産物などの製品等）の食品安全に関する政策立案および管理の責務を負う。保健省同様、その責務は農林水産物品質管理局（National Agro-Forestry-Fisheries Quality Assurance Department: NAFIQAD）に委任されている。なお、農業農村開発省はその権限内で、技術規定のように見えるが、本質は規範となる規定を公布することもあるのは注目に値する。

産業通商省は特定食品セクター（酒類、ビール、飲料、加工乳、植物油、粉・澱粉加工製品などの製品を製造）の食品安全に関する政策立案および管理の責務を負う。これ以外に、産業通商省は市場・スーパーマーケットにおける食品安全、さらに偽造食品および食品取引上の不正に関して最終的な責務を負う。

ベトナムでは、法律は立法権を有する国の最高機関の国会によって公布される（立法行為に相当する）。次いで、条令が国会の常任委員会（第 2 番目の立法機関）により公布される。大統領令および決定、政府議定および決議、首相決定および指令、最後に大臣決定、指令、通知、合同通知の順に続く。

3.5.6.2　食品法規体系と個別食品規格の概要関連図

図 3.5-6 に、ベトナムにおける食品に関する規定および規格に関連する食糧法の概要を示した。

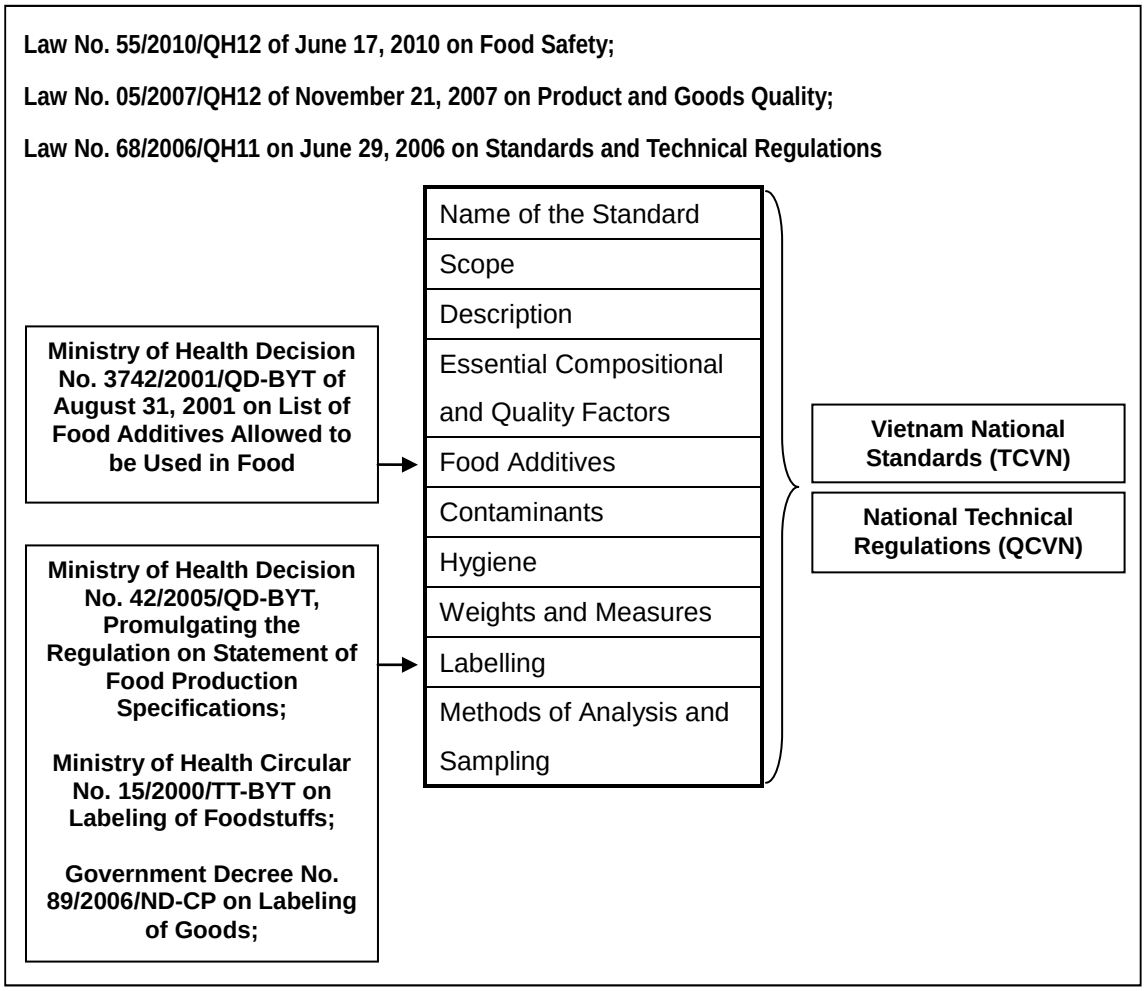


図 3.5-6　ベトナムのおける食品規定および規格に関連する食糧法

3.5.6.3　食品関連法規

（1）食品安全法　第 55/2010/QH12（2010 年 6 月 17 日付）

2010 年 6 月 17 日付法律第 55/2010/QH12（以下、「食品安全法」という）はベトナムにおける「一般食品法」で、2003 年 11 月 1 日に施行された従前の衛生および食品安全に関する条令に代わるものである。同法は 11 章から成り食品安全管理の一般原則の概要を示し、食品安全に関する国策を宣言するものである。また、食品安全性確保に関する具体的な分野に関しても言及し、以下を含む：

1）一般条件
2）生鮮食品
3）加工食品
4）微量栄養素強化食品
5）機能性食品
6）遺伝子組換え食品
7）放射線照射食品
8）食品添加物および加工助剤
9）食品包装用器具、食品包装および食品容器
10）小規模の食品生産
11）屋台での食品

12）輸入食品
13）食品広告および食品表示
14）食品検査
15）リスク分析
16）食品安全の事故管理
17）トレーサビリティおよび回収
18）食品安全に関する情報、教育およびコミュニケーション

（２）製品・商品品質法　第 05/2007/QH12（2007 年 11 月 21 日付）

2007 年 11 月 21 日付製品・商品品質法　第 05/2007/QH12（以下、「製品品質法」という）は消費者保護法としての意味を持ち、また製品の製造あるいは売買に携わる団体および個人、製品・商品の品質および製品・商品の品質管理の原則に関わる活動を行う団体および個人の権利および義務を定める。食品規定に関して、保健省（Ministry of Health：MOH）が食品の品質を管理する責務を、また農業農村開発省（Ministry of Agriculture and Rural Development : MARD）が動植物、動物用飼料、植物保護製品、動物用医薬品およびその他農業あるいは水産養殖業に関連する生物学的製剤の製品・商品の品質を管理する責務を担当する。

（３）規格および技術規定法　第 68/2006/QH11（2006 年 6 月 29 日付）

2006 年 6 月 29 日付規格および技術規定法　第 68/2006/QH11（以下、「規格および技術規定法」という）は、規格の策定、公示および適用、技術規定の策定、公布および適用、また規格および技術規定の準拠評価を規定する。同法において、科学技術省（Ministry of Science and Technology）は同規格の設定過程を指揮、調整を行う責務を負い、一方、各省、省庁同格機関は技術規定開発のための作業を指揮する。規格は強制規格にも任意規格にもなり得るが、技術規定は完全に強制である。

法律において、規格は「製品、商品、サービス、製造過程、環境および社会経済活動におけるその他の物の分類および評価のための基準として用いられる技術特性および管理要件に関する規定」と定義づけられている。一方、技術規定は、「製品、商品、サービス、製造過程、環境および社会経済活動におけるその他の物が安全、衛生および人の健康を確保するため、動植物および環境を保護するため、国益および安全保障、消費者利益およびその他の必須要件を守るために準拠しなければならない技術特性の制限および管理要件に関する規定」と定義されている。

食品規定の抜粋

ベトナムには、食品規格の調査に関連する以下のようないくつかの食品規定がある：

1）食品添加物－
2001 年 8 月 31 日付食品に使用可能な食品添加物リストに関する保健省決定第 3742/2001/QD-BYT

2）衛生－
保健省 QVCN….：食品中の微生物学的汚染物質の安全性限界に関する 2010/BYT 国家技術規定
農業農村開発省の管理下にある特定の国産あるいは輸入の動物由来の食品における食品の安全基準およびその最高値のリストを公布する農業農村開発省通知第 29/2010/TT-BNNPTNT

3） 表示－
商品の表示に関する政府議定第 89/2006/ND-CP
食品製造規格の記述に関する規定を公布する保健省決定第 42/2005/QD-BYT
食品表示に関する保健省通知第 15/2000/TT-BYT

3.5.6.4　食品規格

ベトナムには、食品および食品加工の安全と品質の標準化に用いられる規範的手段として規格と技術的規定の 2 つの形式ある。「規格および技術規定法」で説明した通り、規格は技術的規定と異なり、製品、商品、サービス、製造過程、環境などの技術特性を表し定義するものであり、一方、技術規定はこれらの技術特性の制限を定義づけるため、人、動植物、環境衛生、さらに国益、安全保障および消費者利益の確保の点から編纂する必要がある。

基準は、国家基準（略称「TCVN」）と基礎基準（略称「TCCS」）の 2 種類があり、国家基準は本質的に強制力を持ち得る（規制当局が基準として用いた場合）、また基礎基準は製造業者によって任意に適用される。基準は科学技術省傘下の標準・計量・品質総局（Directorate for Standards, Metrology and Quality: STAMEQ）により開発される。科学技術省傘下の標準・計量・品質総局は各省、省庁同格機関、政府直属機関を指揮調整し国家基準の設定を行う。

一方、国家技術基準（略称「QCVN」）は科学技術省と協議の上、各省および省同格機関により公布される。前項の記載通り、保健省はすべての食品、食品包装用器具、食品包装および食品容器に関する技術規定を公布する責務を負う。しかしながら、他の省庁による技術規定に相当する規定（決定、指令、通知の形式で）も存在する。1 例として、農業農村開発省の管理下にある特定の国産あるいは輸入の動物由来の食品における食品の安全基準およびその最高値のリストの公布に関する農業農村開発省通知第 29/2010/TT-BNNPTNT が挙げられる。

ベトナムにおける国家基準（TCVN）は、個別の食品規格のみならず保存方法、分析法、食品添加物の基準、さらには食品衛生に関する実施基準や一般の加工食品の表示方法など幅広い基準が一緒になっているようだ。
表 3.5-29 に、タイトルから食品の規格（specifications）に関する TCVN と思われるもののみを抽出する。

表 3.5-29　個別食品規格

ICS No.	TCVN No.	Title (Vietnum)	Title (English)
67.080.20	4845-89	Ca` chua tu+o+i	Fresh tomatoes
67.180.20	5909:1995	Ba'nh bi'ch quy. Ye^u ca^`u ky~ thua^.t	Biscuits. Specifications
67.140.30	7518:2005	Ha.t cacao. Thua^.t ngu+~ va` ?i.nh nghi~a	Cocoa beans. Terms and definitions
67.080.10	1873-86	Cam qu?a tu+o+i xua^'t kha^?u	Fresh oranges for export
67.120.30	7525:2006	Va^y ca' ma^.p kho^	Dried shark fins

67.140.20	6929:2001	Ca` phe^ nha^n. Hu+o+'ng da^~n phu+o+ng pha'p mo^ ta? ca'c quy ?i.nh	Green coffee. Guidance on methods of specification
67.160.10	1647-75	Ru+o+.u cam. Ye^u ca^`u ky~ thua^.t	Orange liquor. Specification
67.120.30	2066-77	Ca' la`m sa(~n ?o^ng la.nh (u+o+'p ?o^ng). Ye^u ca^`u ky~ thua^.t	Frozen dressed fishes. Specifications
67.140.10	2843-79	Che` ?o.t tu+o+i. Ye^u ca^`u ky~ thua^.t	Tea leaves. Specifications
67.120.10	4377:1993	Thi.t lo+.n la.nh ?o^ng	Frozen pork for export
67.220.10	7037:2002	Ha.t tie^u tra('ng (piper nigrum L.). Quy ?i.nh ky~ thua^.t	White pepper (Piper nigrum L.). Specification
67.200.10	6044:2007	Mo+~ ?o^.ng va^.t	Animal fats
67.200.10	6031:1995	Da^`u chanh nha^.n ?u+o+.c ba(`ng chu+ng ca^'t	Oil of lime, obtained by distillation
67.120.30	2646-78	Ca' bie^?n u+o+'p nu+o+'c ?a'. Ye^u ca^`u ky~ thua^.t	Iced salt-water fishes. Specifications
67.220.20	5647:1992	Muo^'i io^'t	Iodinated salt
67.120.30	4544-88	To^m tu+o+i. Pha^n loa.i theo gia' tri. su+? du.ng	Fresh shrimps. Classification for use
01.040.67	5643:1992	Ga.o. Thua^.t ngu+~ va` ?i.nh nghi~a	Rice. Terms and definitions
67.080.10	1872:2007	Chuo^'i qua? tu+o+i	Bananas
67.080.10	1577:1994	?o^` ho^.p qu?a. Va?i ho^.p	Canned fruits. Canned litchi
67.080.10	1870:2007	Mu+'t cam, quy't	Citrus marmalade
67.080.10	5259-1990	Chuo^'i xanh. ?ie^`u kie^.n la`m chi'n	Green bananas. Ripening conditions
67.060	4359-86	Bo^.t mi`. Ye^u ca^`u ky~ thua^.t	Wheat flour. Specifications
67.080.20	4844-89	Du+a chuo^.t tu+o+i	Fresh cucumbers
67.080.20	5606:1991	?o^` ho^.p rau. Na^'m ho^.p	Canned vegetables. Canned mushrooms
67.160.20	1682:1994	?o^` ho^.p nu+o+'c qu?a. Nu+o+'c cam	Canned fruit juices. Orange juice
001.040.67	3294-1980	Sa?n xua^'t tinh bo^.t. Thua^.t ngu+~ va` ?i.nh nghi~a	Starch production. Terms and definitions
67.200.10	6309:1997	Da^`u ?a^.u tu+o+ng thu+.c pha^?m	Edible soya bean oil
67.180.10	5908:1995	Ke.o. Ye^u ca^`u ky~ thua^.t	Sweets. Specifications
67.080.10	1440-1986	?o^` ho^.p qu?a. Ma^.n nu+o+'c ?u+o+`ng	Canned fruits. Plum in syrup
67.160.20	1549:1994	?o^` ho^.p qu?a. Nu+o+'c du+'a	Canned fruits. Pineapple juice
67.140.10	5087-90	Che` ?en. Thua^.t ngu+~ va` ?i.nh nghi~a	Black tea. Terms and definitions
67.040	7087:2002	Ghi nha~n thu+.c pha^?m bao go'i sa(~n	Labeling of prepackaged foods
67.120.30	3692-81	Ca' nu+o+'c ngo.t. Ca' bo^.t. Ye^u ca^`u ky~ thua^.t	Fresh water fishes. Fries. Specification
67.120.10	7047:2002	Thi.t la.nh ?o^ng. Quy ?i.nh ky~ thua^.t	Frozen meat. Specification
67.140.10	3242-79	Hom che` gio^'ng	Tea cuttings
67.020	7247:2003	Thu+.c pha^?m chie^'u xa.. Ye^u ca^`u chung	Irradiated foods. General requirements
67.120.30	3590-1988	Rong ca^u	Gracilaria
67.140.20	4193:2005	Ca` phe^ nha^n	Green coffee
67.080.10	1577:2007	Va?i ho^.p	Canned lychee

67.200.20	4850-89	Nha^n ha.t ?ie^`u. Ye^u ca^`u ky~ thua^.t	Caskew kernels. Specifications
67.060	1683-86	Ba'nh mi`. Ye^u ca^`u ky~ thua^.t	Bread. Specification
67.080.20	4845:2007	Ca` chua tu+o+i	Fresh tomatoes
67.060	6095:1995	Ha.t lu'a mi`. Ye^u ca^`u ky~ thua^.t	Wheat. Specifications
67.120.30	7106:2002	Ca' phile ?o^ng la.nh nhanh	Quick frozen fish fillets
67.140.20	5250:2007	Ca` phe^ rang	Roasted coffee
67.080.10	7856:2007	Du+'a ?o^.ng la.nh. Pha^n ha.ng	Grades of frozen pineapple
67.120.30	3695-81	Ca' nu+o+'c ngo.t. Ca' bo^' me.. Ye^u ca^`u ky~ thua^.t	Fresh water fishes. Fish breeders. Specification
67.120.30	3726-89	To^m nguye^n lie^.u tu+o+i	Fresh shrimps for food processing
67.220.10	2080-86	o+'t bo^.t xua^'t kha^?u	Powdered chillies for export
67.100.10	7979:2009	Su+~a bo^.t va` cream bo^.t	Milk powders and cream powder
67.100.10	6403:2007	Su+~a ?a(.c co' ?u+o+`ng	Sweetened condensed milk
67.040	7399:2004	Tie^u chua^?n chung cho ca'c sa?n pha^?m protein thu+.c va^.t	General standard for vegetable protein products (VPP)
67.120.30	6392:1998	Ca' xay che^' bie^'n hi`nh que, ca' ca('t mie^'ng, ca' phile^. Ta^?m bo^.t xu` va` bo^.t nha~o ?o^ng la.nh nhanh	Quick frozen fish sticks (fish finger) fish portion and fish fillets. Breaded or in batter
67.180.10	5267-90	Ma^.t ong tu+. nhie^n. Ye^u ca^`u ky~ thua^.t	Honey. Specifications
67.060	5932:1995	Ba'nh pho^`ng to^m. Ye^u ca^`u ky~ thua^.t	Dried prawn crackers. Specifications
67.080.10	7398:2004	Tu+o+ng ca` chua. Ye^u ca^`u ky~ thua^.t	Tomato sauce. Technical requirements
67.120.10	7048:2002	Thi.t ho^.p. Quy ?i.nh ky~ thua^.t	Canned meat. Specification
67.080.10	1872-86	Chuo^'i tie^u tu+o+i xua^'t kha^?u	Fresh bananas for export
67.100.10	7108:2008	Thu+'c a(n theo co^ng thu+'c da`nh cho tre? so+ sinh va` thu+'c a(n theo co^ng thu+'c vo+'i ca'c mu.c ?i'ch y te^' ?a(.c bie^.t da`nh cho tre? so+ sinh	Standard for infant formula and formulas for special medical purposes intended for infants
67.220.10	5837:1994	Ha.t tie^u. Ye^u ca^`u ky~ thua^.t	Pepper. Specifications
67.100.10	5539:2002	Su+~a ?a(.c co' ?u+o+`ng. Quy ?i.nh ky~ thua^.t	Sweetened condensed milk. Specification
67.080.10	1578:1994	?o^` ho^.p qu?a. Cam qui't ho^.p	Canned fruits. Canned mandarin oranges
67.120.30	4379-86	Thu?y sa?n ?o^ng la.nh xua^'t kha^?u. Ca'. Ye^u ca^`u ky~ thua^.t	Frozen aquatic products for export. Fishes. Specifications
67.080.10	187:1994	?o^` ho^.p qu?a. Du+'a ho^.p	Canned fruits. Canned pineapple
67.100.10	6403:1998	Su+~a ?a(.c co' ?u+o+`ng va` su+~a ?a(.c co' ?u+o+`ng ?a~ ta'ch cha^'t be'o	Sweetened condensed milk and skimmed sweetened condensed milk
67.160.20	6096:1995	Nu+o+'c uo^'ng ?o'ng chai	Bottled drinking water
67.080	1873:2007	Cam tu+o+i	Oranges
67.180.10	6961:2001	?u+o+`ng tho^	Raw sugar
67.120.30	6391:2008	Ca' ?o'ng ho^.p	Canned finfish
67.120.30	6392:2008	Ca' xay che^' bie^'n hi`nh que, ca' mie^'ng va` ca' phile^ ta^?m bo^.t xu` hoa(.c bo^.t nha~o ?o^ng la.nh nhanh	Quick frozen fish sticks (fish finger), fish portions and fish fillets-breaded or in batter
67.080.10	5605:2008	Ca` chua ba?o qua?n	Preserved tomatoes
67.200.20	2383:2008	La.c	Peanuts

67.06	5643:1999	Ga.o. Thua^.t ngu+~ va` ?i.nh nghi~a	Rice. Terms and definitions
67.080.10	5608:1991	?o^` ho^.p qua?. Xa la't qua? nhie^.t ?o+'i	Canned fruits. Tropical fruit salads
235	4545:1994	To^m hu`m ?o^ng la.nh	Frozen spiny lobster
243	7050:2002	Thi.t che^' bie^'n kho^ng qua xu+? ly' nhie^.t. Quy ?i.nh ky~ thua^.t	Non-heat treated processed meat. Specification
245	4359:2008	Bo^.t mi`	Wheat flour
247	7036:2008	Ha.t tie^u ?en (Piper Nigrum L.). Quy ?i.nh ky~ thua^.t	Black pepper (piper nigrum L.). Specification
248	4334:2007	Ca` phe^ va` sa?n pha^?m ca` phe^. Thua^.t ngu+~ va` ?i.nh nghi~a	Coffee and coffee products. Vocabulary
249	6346:1998	Pho+? a(n lie^`n	Instant pho
256	5538:1991	Su+~a bo^.t. Ye^u ca^`u ky~ thua^.t	Powdered milk. Specifications
258	3140-86	Ha`nh ta^y xua^'t kha^?u	Onion for export
262	7401:2004	Tie^u chua^?n chung ?o^'i vo+'i phomat	General standard for cheese
263	5777:2004	Mi` a(n lie^`n	Instant noodles
268	7809:2007	To?i ta^y kho^. Ca'c ye^u ca^`u	Dehydrated garlic (Allium sativum L.). Specification
271	5644:1992	Ga.o. Ye^u ca^`u ky~ thua^.t	Rice. Specification
285	7524:2006	Ca' ?o^ng la.nh nhanh	Quick frozen finfish uneviscerated and eviscerated
293	6929:2007	Ca` phe^ nha^n. Hu+o+'ng da^~n phu+o+ng pha'p mo^ ta? ye^u ca^`u ky~ thua^.t	Green coffee. Guidelines on methods of specification
294	7402:2004	Kem thu+.c pha^?m. Ye^u ca^`u ky~ thua^.t	Edible ices cream. Technical requirements
295	6348:1998	Mie^'n a(n lie^`n	Instant mien
304	5267-1:2008	Ma^.t ong. Pha^`n 1: Sa?n pha^?m ?a~ che^' bie^'n va` su+? du.ng tru+.c tie^'p	Honey. Part one: Processed and intended for direct consumption products
308	7042:2002	Bia ho+i. Quy ?i.nh ky~ thua^.t	Draught beer. Specification
311	6430:1998	Ma^.n ho^.p	Canned plums
315	7968:2008	?u+o+`ng	Sugars
322	5251-90	Ca` phe^ bo^.t. Ye^u ca^`u ky~ thua^.t	Ground coffee. Specifications
324	4800-1989	Bo^.t ca'. Thua^.t ngu+~ va` ?i.nh nghi~a	Fish powder. Terms and definitions
333	7030:2009	Su+~a le^n men	Fermented milks
334	7046:2002	Thi.t tu+o+i. Quy ?i.nh ky~ thua^.t	Fresh meat. Specification
335	6027:1995	Bo^.t mi`. ?a(.c ti'nh va^.t ly' cu?a kho^'i bo^.t nha`o. Xa'c ?i.nh ?a(.c ti'nh lu+u bie^'n ba(`ng bie^?u ?o^` alveograph	Wheat flour. Physical characteristics of doughs. Detertemination of rheological properties using an alveograph
342	3591-1988	Rong ca^u	Agar
349	3974-84	Muo^'i a(n. Ye^u ca^`u ky~ thua^.t	Kitchen salt. Specification
352	188-66	?o^` ho^.p thi.t. Thi.t lo+.n ha^'p	Canned meat. Stewed pork
363	3693-81	Ca' nu+o+'c ngo.t. Ca' hu+o+ng. Ye^u ca^`u ky~ thua^.t	Fresh water fish. Larvules. Specification
366	1763:2008	Nu+o+'c tu+o+ng	Soy sauce
371	1871-88	Du+'a qu?a tu+o+i	Fresh pineapple
372	1871:2007	Du+'a qua? tu+o+i	Pineapples

373	3694-81	Ca' nu+o+'c ngo.t. Ca' gio^'ng. Ye^u ca^`u ky~ thua^.t	Fresh water fish. Breed fishes. Specification
377	7044:2009	Ru+o+.u mu`i. Quy ?i.nh ky~ thua^.t	Liqueur. Specification
382	168-1991	?o^` ho^.p rau. Du+a chuo^.t da^`m da^'m	Canned vegetables. Cucumber pickles
384	7105:2002	Mu+.c o^'ng ?o^ng la.nh nhanh	Quick frozen raw squid
385	7714:2007	Thu+.c pha^?m che^' bie^'n tu+` ngu~ co^'c da`nh cho tre? so+ sinh va` tre? nho?	Codes standard for processed cereal-based foods for infants and young children
386	7265:2003	Quy pha.m thu+.c ha`nh ?o^'i vo+'i ?o^.ng va^.t cha^n ?a^`u	Code of practice for cephalopods
388	5305-91	Ca` chua co^ ?a(.c	Tomato concentrates
393	5860:2007	Su+~a tu+o+i thanh tru`ng	Pasteurized fresh milk
395	4043-85	?o^` ho^.p nu+o+'c qu?a. Nu+o+'c ?u ?u? pha ?u+o+`ng	Canned fruit juices. Papapya juice with sugar
396	5613:1991	Che`. Phu+o+ng pha'p xa'c ?i.nh ?o^. a^?m	Tea. Determination of moisture content
402	6298:1997	Hu+o+'ng da^~n cho nu+o+'c qua? ho^~n ho+.p	Guidelines for mixed fruit juices
403	5540:1991	Sa?n pha^?m su+~a bo^.t ?a(.c bie^.t du`ng cho tre? so+ sinh va` co`n nho? tuo^?i. Ye^u ca^`u ky~ thua^.t	Special powdered milk for babies and infants. Specifications
406	7266:2003	Quy pha.m thu+.c ha`nh ?o^'i vo+'i thuy? sa?n ?o'ng ho^.p	Code of practice for canned fish
408	7523:2005	Qua? thanh long	Dragon fruit
410	6299:1997	Hu+o+'ng da^~n cho necta qua? ho^~n ho+.p	Guidelines for mixed fruit nectars
412	2644:1993	Mu+.c ?o^ng la.nh. Ye^u ca^`u ky~ thua^.t	Frozen cuttles and squids. Technical requirements
413	5000:2007	Xu'p lo+. Hu+o+'ng da^~n ba?o qua?n va` va^.n chuye^?n la.nh	Cauliflowers. Guide to cold storage and refrigerated transport
415	7406:2004	Ba'nh ngo.t kho^ng kem. Ye^u ca^`u ky~ thua^.t	Non-cream sweet cake. Technical requirements
421	1459-74	Mi` chi'nh-Natri glutamat 80%. Ye^u ca^`u ky~ thua^.t	80%monosodium glutamate. Specification
424	1648-75	Ha.t gio^'ng la.c. Pha^n ca^'p cha^'t lu+o+.ng va` ye^u ca^`u ky~ thua^.t	Peanut seeds. Quality gradarion and specification
430	1275-72	Ru+o+.u ca` phe^. Ye^u ca^`u ky~ thua^.t	Coffee liquor. Specification
431	7043:2002	Ru+o+.u tra('ng. Quy ?i.nh ky~ thua^.t	Distilled alcoholic beverages. Specification
432	7045:2009	Ru+o+.u vang. Quy ?i.nh ky~ thua^.t	Wine. Specification
436	7028:2009	Su+~a tu+o+i tie^.t tru`ng	Sterilized fresh milk
439	6958:2001	?u+o+`ng tinh luye^.n	Refined sugar
440	7804:2007	Sa?n pha^?m rau, qua?. Xa'c ?i.nh cha^'t ra('n kho^ng tan trong nu+o+'c	Fruit and vegetable products. Determination of water-insoluble solids
441	6047:1995	Da^`u la.c thu+.c pha^?m (da^`u ?a^.u pho^.ng)	Edible arachis oil
442	7247:2008	Thu+.c pha^?m chie^'u xa.. Ye^u ca^`u chung	General requirements for irradiated foods
446	6389:1998	Thi.t cua ?o'ng ho^.p	Codex standard for canned crab meat

448	7405:2004	Su+~a tu+o+i nguye^n lie^.u. Ye^u ca^`u ky~ thua^.t	Raw fresh milk. Technical requirements
453	6390:1998	Ca' tri'ch va` ca'c sa?n pha^?m da.ng ca' tri'ch ?o'ng ho^.p	Canned sardines and sardine-type products
454	3243-79	Hom che` gio^'ng PH1	PH1 tea cuttings
457	2815-78	?o^` ho^.p nu+o+'c qu?a. Nu+o+'c chanh tu+. nhie^n	Canned fruit juices. Natural lemon juice
460	4042-85	?o^` ho^.p nu+o+'c qu?a. Nu+o+'c ma~ng ca^`u pha ?u+o+`ng	Canned fruit juices. Custard apple juice with sugar
469	1763-86	Nu+o+'c cha^'m. Ye^u ca^`u ky~ thua^.t	'Nuoc cham' sauce. Specifications
470	7044:2002	Ru+o+.u mu`i. Quy ?i.nh ky~ thua^.t	Liqueur. Specification
471	7028:2002	Su+~a tu+o+i tie^.t tru`ng. Quy ?i.nh ky~ thua^.t	Sterilized fresh milk. Specification
473	5107:1993	Nu+o+'c ma('m	Fermented fish sauce
474	4041-85	?o^` ho^.p nu+o+'c qu?a. Nu+o+'c xoa`i pha ?u+o+`ng	Canned fruit juices. Mango juice with sugar
482	3251-79	Ca' bie^?n u+o+'p muo^'i la`m chu+o+.p	Salted salt-water fishes for manufacturing of half-salted products
483	7108:2002	Su+~a bo^.t da`nh cho tre? ?e^'n 12 tha'ng tuo^?i. Quy ?i.nh ky~ thua^.t	Dried milk for infants up-to 12 months age. Specification
486	3219-79	Co^ng nghe^. che^' bie^'n che`. Thua^.t ngu+~ va` ?i.nh nghi~a	Tea processing technology. Terms and definitions
489	6386:1998	Ca' ho^`i ?o'ng ho^.p	Canned salmon
492	5009:2007	To?i. Ba?o qua?n la.nh	Garlic. Cold storage
496	6388:1998	Ca' ngu+` ?o'ng ho^.p	Canned tuna and bonito
497	7029:2002	Su+~a hoa`n nguye^n tie^.t tru`ng. Quy ?i.nh ky~ thua^.t	Sterilized reconstituted milk. Specification
501	5526:1991	Nu+o+'c ma('m. Chi? tie^u vi sinh	Fermented fish sauce (Nuoc mam). Microbiological characteristics
502	5651:1992	Mu+.c kho^ xua^'t kha^?u. Ye^u ca^`u ky~ thua^.t	Dried squids for export. Specification
503	7049:2002	Thi.t che^' bie^'n co' xu+? ly' nhie^.t. Quy ?i.nh ky~ thua^.t	Heat treated processed meat. Specification
505	5503-91	Thi.t bo` la.nh ?o^ng	Frozen beef
517	5644:2008	Ga.o tra('ng. Ye^u ca^`u ky~ thua^.t	White rice. Specifications
518	4067:1985	Ke.o. Phu+o+ng pha'p la^'y ma^~u	Confectionery. Sampling methods
519	1695-87	?u+o+`ng tinh luye^.n va` ?u+o+`ng ca't tra('ng. Ye^u ca^`u ky~ thua^.t	Refined and white sugars. Specifications
523	6297:1997	Tie^u chua^?n chung cho nu+o+'c qua? ?u+o+.c ba?o qua?n chi? ba(`ng ca'c bie^.n pha'p va^.t ly' ne^'u kho^ng co' ca'c tie^u chua^?n rie^ng	General standard for fruit juices preserved exclusively by physical means not covered by individual standards
525	5538:2002	Su+~a bo^.t. Quy ?i.nh ky~ thua^.t	Milk powder. Specification
528	7036:2002	Ha.t tie^u ?en (piper nigrum L.).Quy ?i.nh ky~ thua^.t	Black pepper (piper nigrum L.). Specification
530	5607:1991	?o^` ho^.p qua?. Qua? ho^~n ho+.p	Canned fruits. Fruits cocktails
531	7879:2008	Sa?n pha^?m ngu~ co^'c da.ng so+.i a(n lie^`n	Instant noodles
534	6347:1998	Bu'n kho^ a(n lie^`n	Instant rice vermicelli
538	5644:1999	Ga.o tra('ng. Ye^u ca^`u ky~ thua^.t	White rice. Specifications

541	7041:2009	?o^` uo^'ng kho^ng co^`n. Quy ?i.nh ky~ thua^.t	Soft drinks. Specification
551	3974:2007	Muo^'i thu+.c pha^?m	Food grade salt
555	1454:1993	Che` ?en ro+`i. ?ie^`u kie^.n ky~ thua^.t	Black tea. Specifications
556	3696-81	Ca' nu+o+'c ngo.t. Ca' thi.t	Fresh water fishes. Food fishes
560	7975:2008	Che` tha?o mo^.c tu'i lo.c	Herbal tea in bag
561	4809-89	Xie^n la^'y ma^~u ca` phe^ nha^n	Coffee triers
565	4849:1989	?o^~ tu+o+ng. Ye^u ca^`u ky~ thua^.t	Soya-bean. Specifications
576	6057:1995	Bia ho^.p. Ye^u ca^`u ky~ thua^.t	Canned beer. Specifications
577	5835:1994	To^m thi.t ?o^ng la.nh IQF xua^'t kha^?u	Individual quick frozen peeled shrimps for export
580	6057:2009	Bia. Quy ?i.nh ky~ thua^.t	Beer. Specification
583	1274-72	Ru+o+.u chanh. Ye^u ca^`u ky~ thua^.t	Lemon liquor. Specification
590	5288-90	To^m gio^'ng. Ye^u ca^`u ky~ thua^.t	Breed shrimps (postlosval). Specification
596	4187-86	Ke.o chuo^'i xua^'t kha^?u	Banana bonbon for export
598	7808:2007	Ha`nh ta^y kho^. Ca'c ye^u ca^`u	Dehydrated onion (Allium cepa Linnaeus). Specification
601	6389:2003	Thi.t cua ?o'ng ho^.p	Canned crarb meat
602	7240:2003	Ba'nh ?a^.u xanh	Green been cake
603	6392:2002	Ca' xay che^' bie^'n hi`nh que, ca' ca('t mie^'ng va` ca' phile ta^?m bo^.t xu` hoa(.c bo^.t nha~o ?o^ng la.nh nhanh	Quick frozen fish sticks (fish finger), fish portions and fish fillets - breaded or in batter
604	7404:2004	Su+~a bo^.t ga^`y. Ye^u ca^`u ky~ thua^.t	Skimmed milk powder. Technical requirements
613	2383:1993	La.c qua? va` la.c ha.t. Pha^n ha.ng cha^'t lu+o+.ng	Peanuts in shell and peanut kernels. Quality classification
621	4782-89	Rau qu?a tu+o+i. Danh mu.c chi? tie^u cha^'t lu+o+.ng	Fresh vegetables and fruits. List of quality characteristics
623	5777:1994	Mi` a(n lie^`n	Instant noodle
626	2830-79	Thi.t lo+.n. Pha lo.c va` pha^n ha.ng trong thu+o+ng nghie^.p ba'n le?	Pork. Cutting and sorting for retail trade
634	5652:1992	Mu+.c tu+o+i	Fresh squids and cuttles
638	5107:2003	Nu+o+'c ma('m	Fish sauce
639	6387:2006	To^m ?o'ng ho^.p	Canned shrimps or prawns
640	5147-1990	Thi.t va` sa?n pha^?m cu?a thi.t. Phu+o+ng pha'p xa'c ?i.nh du+ lu+o+.ng penixilin	Meat and meat products. Determination of penicillin residues
641	4191-86	Ru+o+.u Thanh mai xua^'t kha^?u. Ye^u ca^`u ky~ thua^.t	Apricot liquor for export. Specifications
643	5089-90	Ba?o qua?n ngu~ co^'c va` ?a^.u ?o^~. Ye^u ca^`u co+ ba?n	Storage of cereals and pulses. Basic requirements
644	7043:2009	Ru+o+.u tra('ng. Quy ?i.nh ky~ thua^.t	White spirit. Specification
645	7110:2008	To^m hu`m ?o^ng la.nh nhanh	Quick frozen lobsters
650	6046:1995	Da^`u ha.t hoa hu+o+'ng du+o+ng thu+.c pha^?m	Edible sunflowerseed oil
658	7041:2002	?o^` uo^'ng pha che^' sa(~n kho^ng co^`n. Quy ?i.nh ky~ thua^.t	Soft drinks. Specification
659	4813-89	Mu+.c tu+o+i. Xe^'p loa.i theo gia' tri. su+? du.ng	Fresh squids and cuttles. Classification for use

660	7400:2004	Bo+. Ye^u ca^`u ky~ thua^.t	Butter. Technical requirements
661	5322:1991	Na^'m a(n va` sa?n pha^?m na^'m a(n	Edible fungi and fungus products
667	4334:2001	Ca` phe^ va` ca'c sa?n pha^?m cu?a ca` phe^. Thua^.t ngu+~ va` ?i.nh nghi~a	Coffee and its products. Vocabulary
669	7946:2008	Nu+o+'c qua? va` nectar	Fruit juices and nectars
671	1442-1986	Tru+'ng vi.t tu+o+i. Thu+o+ng pha^?m	Fresh duck eggs
677	5108-90	Che^' bie^'n to^m. ?ie^`u kie^.n ky~ thua^.t va` ve^. sinh	Shrimps processing. Specification and hygienic requirements
678	7974:2008	Che` (Camellia sinensis) (L.) O. Kuntze) tu'i lo.c	Tea (Camellia sinensis) (L.) O. Kuntze) in bag
683	6048:1995	Da^`u co. thu+.c pha^?m	Edible palm oil
684	4850:1998	Nha^n ha.t ?ie^`u	Cashew kernal
685	7397:2004	Tu+o+ng o+'t. Ye^u ca^`u ky~ thua^.t	Chilli sauce. Technical requirements
688	6096:2004	Nu+o+'c uo^'ng ?o'ng chai	Bottled/packaged drinking waters
696	4995:2008	Ngu~ co^'c. Thua^.t ngu+~ va` ?i.nh nghi~a	Cereals. Vocabulary
706	6959:2001	?u+o+`ng tra('ng	White sugar
709	6049:2007	Bo+ thu+.c va^.t	Margarin
710	5109-90	To^m ?o^ng la.nh nhanh	Quick frozen shrimps or prawns
715	7045:2002	Ru+o+.u vang. Quy ?i.nh ky~ thua^.t	Wine. Specification
716	5250-90	Ca` phe^ rang. Ye^u ca^`u ky~ thua^.t	Roasted coffee. Specifications
717	6310:1997	Da^`u ha.t bo^ng thu+.c pha^?m	Edible cottonseed oil
718	6388:2006	Ca' ngu+` ?o'ng ho^.p	Canned tuna and bonito
719	7597:2007	Da^`u thu+.c va^.t	Vegetable oils
727	5289:1992	To^m mu+.c ?o^ng la.nh. Ye^u ca^`u vi sinh	Frozen shrimps and cuttles (or squids). Microbiological requirements
728	5371-91	Mo+~ lo+.n ra'n	Rendered pork fat
734	1858-1986	Tru+'ng ga` tu+o+i thu+o+ng pha^?m	Fresh chicken eggs
747	187:2007	Du+'a ho^.p	Canned pineapple
748	6459:1998	Phu. gia thu+.c pha^?m. Pha^?m ma`u Riboflavin	Food additive. Riboflavin
751	7396:2004	Bo^.t canh gia vi.. Ye^u ca^`u ky~ thua^.t	Spicing salt powder. Technical requirements
754	4843:2007	Qua? kho^ va` qua? sa^'y kho^. ?i.nh nghi~a va` te^n go.i	Dry fruits and ?rie fruits. Definitions and nomenclature
762	3806-83	?o^` ho^.p qu?a. Cho^m cho^m nu+o+'c ?u+o+`ng	Canned fruits. Rambutan in syrup
765	5370-91	Nu+o+'c khoa'ng ?o'ng chai	Bottled mineral waters
769	5258:2008	Ngo^ (ha.t)	Maize (Corn)
770	7519:2005	Ha.t cacao	Cocoa beans
771	2637:1993	Da^`u thu+.c va^.t. Phu+o+ng pha'p xa'c ?i.nh ta.p cha^'t kho^ng tan	Vegetable oils. Determination of insoluble impurities content
772	5650:1992	To^m no~n kho^ xua^'t kha^?u. Ye^u ca^`u ky~ thua^.t	Dried peeled shrimps for export. Specification
773	6044:1995	Mo+~ lo+.n ra'n	Rendered pork fat
774	4193:1993	Ca` phe^ nha^n. Ye^u ca^`u ky~ thua^.t	Green coffee. Specifications

780	2623-78	Ru+o+.u gu+`ng 40o. Ye^u ca^`u ky~ thua^.t	40o ginger liquor. Specification
783	7268:2003	?u+o+`ng. Thua^.t ngu+~ va` ?i.nh nghi~a	Sugar. Terms and definitions
786	4193:2001	Ca` phe^ nha^n. Ye^u ca^`u ky~ thua^.t	Green coffee. Specification
787	3250-88	Ca' bie^?n tu+o+i. Pha^n loa.i theo gia' tri. su+? du.ng	Fresh salt-water fishes. Classification for use
788	2080:2007	o+'t chilli va` o+'t capsicum, nguye^n qua? hoa(.c xay (da.ng bo^.t). Ca'c ye^u ca^`u	Chillies and capsicums, whole or ground (powdered). Specification
791	1455:1993	Che` xanh. ?ie^`u kie^.n ky~ thua^.t	Green tea. Specifications
796	6045:1995	Da^`u vu+`ng thu+.c pha^?m (Da^`u me`)	Edible sesameseed oil
798	4334-86	Ca` phe^ va` ca'c sa?n pha^?m cu?a ca` phe^. Thua^.t ngu+~ va` ?i.nh nghi~a	Coffee and coffee products. Terms and definitions
812	5258-90	Ngo^ (Ha.t)	Maize (Corn)
813	6312:1997	Da^`u o^liu chu+a tinh che^', tinh che^' va` da^`u o^liu, tinh che^' ba(`ng phu+o+ng pha'p tri'ch ly	Olive oil, virgin and refined, and refined olive-pomace oil
816	6462:1998	Phu. gia thu+.c pha^?m. Pha^?m ma`u Erythrosin	Food additive. Erythrosine
817	7267:2003	Kho^'i ca' phile^, thi.t ca' xay va` ho^~n ho+.p ca' phile^ vo+'i thi.t ca' xay ?o^ng la.nh nhanh	Quick frozen blocks of fish fillet, minced fish flesh and mixtures of fillets and minced fish flesh
818	4546:1994	To^m mu~ ni ?o^ng la.nh	Frozen slipper lobster
819	3295-1980	Sa?n xua^'t ?u+o+`ng glucoza-ma^.t tinh bo^.t. Thua^.t ngu+~ va` ?i.nh nghi~a	Syrup-dextrose production. Terms and definitions
826	2064-77	To^m ?o^ng la.nh (u+'o+p ?o^ng). Ye^u ca^`u ky~ thua^.t	Frozen shrimps. Specification
830	5836:1994	To^m thi.t luo^.c chi'n ?o^ng la.nh xua^'t kha^?u	Frozen peeled and cooked shrimps for export
831	7403:2004	Thu+'c a(n da`nh cho tre? em tu+` 6 tha'ng ?e^'n 36 tha'ng tuo^?i. Ye^u ca^`u ky~ thua^.t	Foods intended for use for children from 6 months up to 36 months of age. Technical requirements
834	5860:1994	Su+~a thanh tru`ng	Pasteurized milk
835	6463:1998	Phu. gia thu+.c pha^?m. Cha^'t ta.o ngo.t. Kali sacarin	Food additive. Potassium saccharin
836	6390:2006	Ca' tri'ch va` ca'c sa?n pha^?m ca' tri'ch ?o'ng ho^.p	Canned sardines and sardine-type products
842	7110:2002	To^m hu`m ?o^ng la.nh nhanh	Quick frozen lobsters
843	1575-74	?o^` ho^.p thi.t. Thi.t ga` ha^`m nguye^n xu+o+ng	Canned meat. Stewed chicken
846	6345:1998	Hu? tie^'u a(n lie^`n	Oiental style instant noodle
848	6312:2007	Da^`u o^liu va` da^`u ba~ o^liu	Olive oils and olive pomace oils
849	4359:1996	Bo^.t mi`	Wheat flour
851	5251:2007	Ca` phe^ bo^.t	Ground coffee
853	7042:2009	Bia ho+i. Quy ?i.nh ky~ thua^.t	Draught beer. Specification
856	6387:1998	To^m ?o'ng ho^.p	Canned shrimps or prawns
858	1521-86	?o^` ho^.p qu?a. Chuo^'i tie^u nu+o+'c ?u+o+`ng. Ye^u ca^`u ky~	Canned fruits. Bananas in syrup. Specifications

		thua^.t	
860	377-70	Ru+o+.u Lu'a mo+'i. Ye^u ca^`u ky~ thua^.t	'Lua moi' alcohol (rice vodka). Specification
869	4784-89	Thi.t la.nh ?o^ng. Danh mu.c chi? tie^u cha^'t lu+o+.ng	Frozen meat. List of quality characteristics
872	7030:2002	Su+~a chua. Quy ?i.nh ky~ thua^.t	Yoghurt. Specification
874	3141-86	To?i cu? xua^'t kha^?u	Garlic bulbs for export
875	6095:2008	Ha.t lu'a mi` (Triticum aestivum L.). Ca'c ye^u ca^`u	Wheat (Triticum aestivum L.). Specification
880	4381:1992	To^m vo? ?o^ng la.nh. Ye^u ca^`u ky~ thua^.t	Unpeeled frozen shrimps. Specifications
882	1578:2007	Cam quy't ho^.p	Canned mandarin oranges
886	6311:1997	Da^`u du+`a thu+.c pha^?m	Edible coconut oil
891	5305:2008	Ca` chua co^ ?a(.c	Processed tomato concentrates
893	5450-91	?o^` ho^.p thi.t. Thi.t trong nu+o+'c xo^'t thi.t. Ye^u ca^`u ky~ thua^.t	Canned meat. Meat in sauce. Specifications
894	1870-76	?o^` ho^.p qu?a. Mu+'t cam. Ye^u ca^`u ky~ thua^.t	Canned fruits. Orange marmalade. Specifications
895	4192-86	Ru+o+.u Hu+o+ng chanh 40o xua^'t kha^?u. Ye^u ca^`u ky~ thua^.t	40o lemon liquor for export. Specification
897	2065-77	Ca' phi le^ ?o^ng la.nh (u+o+'p ?o^ng). Ye^u ca^`u ky~ thua^.t	Frozen fish fillets. Specifications
898	3220-79	?o^` ho^.p su+~a. Danh mu.c ca'c chi? tie^u cha^'t lu+o+.ng	Canned milk. List of quality characteristics
899	4186-86	To^m va` mu+.c ?o^ng la.nh. Chi? tie^u vi sinh va^.t	Frozen shrimps and cuttles. Microbiological characteristics
903	4039-85	Du+'a la.nh ?o^ng	Frozen pineapple
909	6175:1996	Thuy? sa?n kho^. Mu+.c, ca' kho^ ta^?m gia vi. a(n lie^`n	Dryed fishery products. Seasoned squid and fish ready to eat
913	3578:1994	Sa('n kho^	Dried manioc
915	4844:2007	Du+a chuo^.t tu+o+i	Cucumbers
919	3244-79	Ca^y che` ca`nh. Ye^u ca^`u ky~ thua^.t va` phu+o+ng pha'p thu+?	Tea plants. Specification and test methods
921	4380:1992	To^m thi.t ?o^ng la.nh. Ye^u ca^`u ky~ thua^.t	Peeled frozen shrimps. Specifications
923	6386:2003	Ca' ho^`i ?o'ng ho^.p	Canned salmon
927	2624-78	Ru+o+.u quy't. Ye^u ca^`u ky~ thua^.t	Mandarin liquor. Specification
929	5539:1991	Su+~a ?a(.c co' ?u+o+`ng. Ye^u ca^`u ky~ thua^.t	Sweetened condensed milk. Specifications
930	5605:1991	?o^` ho^.p rau. Ca` chua ?o'ng ho^.p	Canned vegetables. Canned tomatoes
939	1576-74	?o^` ho^.p thi.t. Thi.t vi.t ha^`m nguye^n xu+o+ng	Canned meat. Stewed duck
940	6049:1995	Bo+ thu+.c va^.t	Margarine
945	7029:2009	Su+~a hoa`n nguye^n tie^.t tru`ng va` su+~a pha la.i tie^.t tru`ng	Sterilized reconstituted milk and sterilized recombined milk
954	5109:2002	To^m bie^?n hoa(.c to^m nu+o+'c ngo.t ?o^ng la.nh nhanh	Quick frozen shrimps or prawns
955	6391:1998	Ca' ?o'ng ho^.p	Canned finfish

3.5.6.5　食品一般に関する分析法

食品一般に関しては、表 3.5-A5 に、ケーススタディで取り上げた食品に関しては、それぞれ各食品規格表（表 3.5-30～32）の後に別掲した。

3.5.6.6　ケーススタディ

（１）即席めん

規格は TCVN 7879: 2008 に記載されている Cereal products instant noodles を表記した。分析項目は微生物の混入のみが挙げられている（関連法規不明；表 3.5-30）。

（２）炭酸飲料

規格はノンアルコールのフルーツジュースやネクター（花のみつ）飲料に関するものを記載した（QCVN 6-2:2010/BYT）。本規格は機能性食品には適用できない。分析項目は微生物のみである（QCVN 6-2:2010/BYT - National technical regulation；表 3.5-31）。

（３）調理冷凍食品

規格は Frozen aquatic products（TCVN 5289：2006）と Frozen meat（TCVN 7047:2002）に関するものを記載した。分析項目は微生物のみである（表 3.5-32）。

表 3.5-A5　食品一般に関わる分析法

Related legislation	Item	Specification	Analytical Methods	Reference
QCVN ... 2010/BYT National technical regulation on the safety limits of Microbiological contaminants in food	Microbiological contaminants			
TCVN 4832-89 List of contaminants and their maximum levels in food	Chemical contaminants			

表 3.5-30　ケーススタディ１　即席めん

Standard / Item	TCVN 7879: 2008
Name of the Standard	Instant noodles
Scope	Cereal products instant noodles
Description	Wheat flour, cereal powder, others are used, added with or without added optional ingredients
Essential Composition and Quality Factor	Basic ingredients: wheat flour, cereal powder, others; portable water
	General requirements:
	Moisture content: <= 10% for fried products; <=14% for non-fried products
	Acidity index: <= 2 mg KOH/g oil (applied for fired products)
Food additives	In accordance to the Codex Alimentarius Commission (Codex Stan 249 : 2006)
	Permitted food additives to be used
	Acid regulator
	Antioxidant
	Colours
	Flour treatment agent
	Stabilizer
	Chat lam day
	Chat tao nhu
	Preservatives
	Chat giu am
Contaminant	In accordance to the Codex Alimentarius Commission (Codex Stan 193 : 1995)
Package and wrapping	Packaged in hygiene wrapping, nutrition, characteristics of perceptibles and technologies of products
	Package and materials of packages must be made from safe materials and suitables to used goal. Package must be not trasmissable toxical substances or odour or undesired odour in products
Hygiene	in accordance to TCVN 5603:2008 (Cac/RCP 1-1969; Rev. 4-2003) Guideline for practical general principesto food hygiene and the other related as Codex
	Bacteria in products must be complied with microbilology standard established to CAC/GL 21-1997 - Principles to establishing and aplication microbiology standard in food

Labeling	The products of this standard must be labeled according to TCVN 7087: 2008 (Codex Stan 1-2005) Food labelling for packaged products
	Name of products
	Name of products must be labeled "Instant noodles" or "Instant noodles with fry" or "Instant noodles without fry"
	Labellng for "HALAL" products
	When claiming "HALAL" food in instant noodles product's label, it must be complied with Codex CAC/GL 24-1997; General Guidelines for Using Hala's terminology
Methods of analysis and sampling	Method sampling - sall be in accordance with the CAC/GL 50-2004 General Guidelines for sampling
	Determination of moisture - according to TCVN 7879:2008
	Determination of free oil - according to TCVN 7879:2008
	Determination of acidity index - according to TCVN 7879:2008

＜分析法＞　即席めん

Related legislation	Item	Specification	Analytical Methods	Reference
	Bacteria	10,000/q	ISO 4833: 1991	EU, Australia
	Coliforms	10/q	ISO 4832: 1991	
	E. coli	3	ISO 7251: 1993	
	S. aureus	10/q	ISO 6883: 1983	
	Cl. perfringens	10/q	ISO 7937: 1985	
	Bacillus cereus	10/q	ISO 7932: 1987	
	Salmonella	Negative	ISO 6579:1983	
	Yeasts and moulds	100/q	ISO 7954: 1987	

表 3.5-31　ケーススタディ２　炭酸飲料

Standard / Item		QCVN 6-2:2010/BYT	
Name of the Standard		National technical regulation for soft drinks	
Scope		This national technical regulate the food safety standard items ans management demands for soft drinks products including: fruits beverages, necta beverages, ready to drink without alcolhol. This national technical is non-applicable for functional food	
Description			
Essential Composition and Quality Factor		Demand of water's quality of soft drink, it is suitable to QCVN 01:2009/BYT of quality of water, issued in accordance to regulation No 04/2009/TT-BYT dated on 17/6/2009 by Minister of Health	
		Demand of food safety of soft drink products	
Contaminants		**MRLs**	**Methods of analysis**
Heavy metal	Plomb (Pb) (mg/l)	0.05	TCVN 8126: 2009
	Tin (Sn) (applied to canned products used Tin (mg/l)	150	TCVN 7769: 2007 (ISO 17240:2004); TCVN 7788:2007
Toxicology of micro-fungus	Patulin in apple breverages and nectar apple (mcg/l)	50	TCVN 8161:2009 (EN 14177:2003)
Pesticides residues	Frutis beverages (citrus)		
	Piperonyl butoxid (mg/l)	0.05	US FDA PAM, Vol.1, Section 302, E1/E4+C4
	Orange beverages and nectar		
	2-phenylphenol (mg/l)	0.5	US FDA PAM, Vol.1, Section 302, E1/E2
	Propargit (mg/l)	0.3	US FDA PAM, Vol.1, Section 302, E1/E2
	Apple beverages and nectar apple		
	Diphenylamin (mg/l)	0.5	US FDA PAM, Vol.1, Section 302, E1/E2
	Propargit (mg/l)	0.2	US FDA PAM, Vol.1, Section 302, E1/E2
	Grapes beverages and nectar grapes		
	Propargit (mg/l)	1	US FDA PAM, Vol.1, Section 302, E1/E2
	Tomoto beverages and nectar tomato		
	Carbaryl (mg/l)	3	TCVN 8171-1:2009 (EN 14185-1:2003)
	Malathion (mg/l)	0.01	AOAC 970.53
	Piperonyl butoxid (mg/l)	0.3	US FDA PAM, Vol.1, Section 302, E1/E4+C4
Microbiology	Total of plate counte (cfu/ml)	100	TCVN 4884 : 2005 (ISO 4833:2003)

	Coliforms (cfu/ml)	10	TCVN 6848 : 2007 (ISO 4832 : 2006); TCVN 4882 : 2007 (ISO 4831:2006)
	E.coli (cfu/ml)	Absent	TCVN 7924-1:2008 (ISO 16649-1:2001)
			TCVN 7924-2:2008 (ISO 16649-2:2001); TCVN 7924-3:2008 (ISO/TS 16649-3:2005)
	Str.faecal (cfu/ml)	Absent	TCVN 6189-2:1996 (ISO 7899-2:1984)
	Ps.aeruginosa (cfu/ml)	Absent	ISO 16266:2006
	S.aureus (cfu/ml)	Absent	TCVN 4830-1:2005 (ISO 6888-1:1999 with Amd.1:2003); TCVN 4830-2:2005 (ISO 6888-2:1999, with Amd.1:2003); TCVN 4830-3:2005 (ISO 6888-2:2003)
	Cl.perfringens (cfu/ml)	Absent	TCVN 4991:2005 (ISO 7937:2004)
	Total of Yeats and Mould (cfu/ml)	10	TCVN 8275-1:2009 (ISO 21527-1:2008)
Food additives	in according to regulation No 3742/2001 by Ministry of Health		
Labelling	Labelling of soft drink products must be followed regulation No 89/2006/ND-CP issued on 30/8/2006 by Government		
Sampling	Not specified		

＜分析法＞　炭酸飲料

Related legislation	Item	Specification	Analytical Methods	Reference
QCVN 6-2:2010/BYT - National technical regulation for soft drink	Coliforms	10 cfu/ml	ISO 4832: 2006; ISO 4831: 2006	
	E. coli	No detective	ISO 16649-1:2001; ISO 16649-2:2001; ISO 16649-3:2005	
	S. aureus	No detective	ISO 6888-1:1999, with Amd. 1:2003); ISO 6888-2:1999, with Amd. 1:2003); ISO 6888-2:2003)	
	Cl. perfringens	No detective	ISO 7937: 2004	
	S. faecal	No detective	ISO 7899-2:1984	
	Yeasts and moulds	10 cfu/ml	ISO 21527-1:2008	
	P.aeruginosa	No detective	ISO 16266:2006	
	Total aerobic bacterial	100 cfu/ml	ISO 4833:2003	

表 3.5-32　ケーススタディ３　調理冷凍食品

Standard / Item		TCVN 5289 : 2006	
Name of the Standard		Frozen aquatic products - Hygienic requirements	
Scope		applied to MRLs of histamine, heavy metal residues and microbiology in frozen aquatic products, used to food processing	
Description			
Essential Composition and Quality Factor			
Contaminants		**MRLs**	**Methods of analysis**
	Histamine (mg/kg)	100	Not specified
Heavy metal	Arsenic (mg/kg)	0.5	Not specified
	Plomb (mg/kg)		
	soft animals	1	Not specified
	other aquatic products	0.5	Not specified
	Mercury (mg/kg)		
	fish-eating (shark, tuna)	1	Not specified
	other aquatic products	0.5	Not specified
	Cadmium		
	Fish	0.1	Not specified
	Crustacean	0.5	Not specified
	soft animals	1	Not specified
Microbiology	Total of plate count (cfu/g)	1,000,000	Not specified
	E.coli (cfu/g)	100	Not specified
	S.aureus (cfu/g)	100	Not specified
	Cl.perfringens (cfu/g)	100	Not specified
	Salmonella (/25g)	0	Not specified
	V.parahaemolyticus (cfu/g)	100	Not specified
Sampling	Not specified		

Standard / Item		TCVN 7047:2002 - Technical regulations	
Name of the Standard		Frozen meat - Specification	
Scope		applied to cattle, poultry, bird meat, animals which are frozen and frozen preservation used as food	
Description		fresh meat is frozen and frozen preservation used as food at the temperature under -12 degree	
		MRLs	**Methods of analysis**
Technical requirements	Materials		
	Fresh meat		TCVN 7046 : 2002
	not permitted to use frozen meat		
Hygiene	pH	5.5 - 6.2	TCVN 4835 : 2002 (ISO 2917 : 1999)
	Hydro sunfure (Qualification)	negative	TCVN 3699 : 1990
	Ammoniac (mg/100g)	35	TCVN 3699 : 1990
Contaminants			
Heavy metal	Plomb (mg/kg)	0.5	TCVN 5151 : 19901
	Cadmium (mg/kg)	0.05	AOAC 945.58
	Mercury (mg/kg)	0.03	TCVN 5152 : 1990
Microbiology	Total of plate count (cfu/g)	1,000,000	TCVN 5667 : 1992
	E.coli (cfu/g)	100	TCVN 5155 : 1990
	Coliforms (cfu/g)	100	TCVN 4882 : 2001 (ISO 4831 : 1993)
	Cl.perfringens (cfu/g)	10	TCVN 4991 : 1989 (ISO 7937 : 1985)
	Salmonella (/25g)	0	TCVN 5153 : 1990 (ISO 6888 : 1993)
	S.aureus (cfu/g)	100	TCVN 5156 : 1990
	B.cereus (cfu/g)	100	TCVN 4992 : 1989
	Cl.botulinum (cfu/g)	0	AOAC 977.26
Pesticides residues	Cabaryl (mg/kg)	0	Not specified
	DDT (mg/kg)	0.1	Not specified
	2,4 D (mg/kg)	0	Not specified
	Lindan (mg/kg)	0.1	Not specified
	Triclophon (mg/kg)	0	Not specified
	Diclovos (mg/kg)	0	Not specified

	Diazinon (mg/kg)	0.7	Not specified
	Fenclophos (mg/kg)	0.3	Not specified
	Clopyrifos (mg/kg)	0.1	Not specified
	Cuomaphos (mg/kg)	0.2	Not specified
Hormone residues	Dietylstylbestrol (mg/kg)	0	Not specified
	Testosterol (mg/kg)	0.015	Not specified
	Estadiol (mg/kg)	0.0005	Not specified
Labelling	in accordance to Regulation of labelling circulated in nationwide and imported & exported food No 178/1999/QD-TTg		
Sampling	In accordance to Standard TCVN 4833-1:2002 (ISO 3100-1:1991) - Meat and meat products - Sampling and prepared testing samples - Part 1: Sampling and TCVN 4833-2:2002 (ISO 3100-2:1988) - Meat and meat products - Sampling and prepared testing sample - Part 2: Preparing of testing samples for micribiological tesing		

＜分析法＞　調理冷凍食品

Related legislation	Item	Specification	Analytical Methods	Reference
Food Sanitation Act	Bacteria	<1,000,000 /g	ISO 4833: 1991	
	Coliforms	<100/g	ISO 4832: 1991	
	E. coli	<100/g	ISO 7251: 1993	
	S. aureus	<100/g	ISO 6883: 1983	
	Cl. perfringens	<100/g	ISO 7937: 1985	
	Salmonella	Negative	ISO 6579:1983	
	V. parahaemolyticus	<100/g		

3.6　事例研究　－各国における牛乳分析法の比較評価

本章（3.　各国の調査結果）は、コーデックス分析法をはじめ、日本、韓国、中国、東南アジア（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）の食品一般規格と、即席めん、炭酸飲料、調理冷凍食品をケーススタディとして取り上げ、詳細な食品分析法を調査したものである。

本項では、これまで即席めん、炭酸飲料、調理冷凍食品等の加工食品を調査したが、参考までに生鮮食品に近い牛乳を例にとり、上記国ごとの分析法について調査した。

＜分析法＞　牛乳

日本

Related legislation	Item	Specification	Analytical Methods	Reference
Ministerial Ordinance on Milk and Milk Products Concerning Compositional Standards	Nonfat milk solids(%)	8.0%<	Calculated by subtraction of the amount of milk fat % from the amount of the material % dried until a constant weight % at 98-100°C	Ministerial Ordinance on Milk and Milk Products Concerning Compositional Standards
	Milk fat (%)	3.0%<	The frequency of fat layer is expressed as the amount of fat % by operating of the Gerber lactobutyrometer etc.	
	Specific gravity (at 15°C）	1.028-1.034 (Those using milk of cows other than Jersey cows only as raw materials)	The measurement of specific gravity by the floatage type lactometers in the range of 1.015 to 1.040.	
		1.028-1.036 (Those using milk of Jersey cows　only as raw materials)		
	Acidity (as lactic acid %）	<0.18% (Those using milk of cows other than Jersey cows only as raw materials)	Titration with sodium hydroxide solution	
		<0.20% (Those using milk of Jersey cows　only as raw materials)		
	Bacteria (count /mL)	<50,000/mL	Standard agar medium（32-35°C 48±3h）	
	Coliform bacilli	Negative	BGLB fermentation tube：gas formation→E.MB medium→Lactose broth fermentation tube and agar slant. The lactose broth fermentation tube：gas generation→The agar slant：microscopic test→Gram-negative nonspore-forming bacilli：Coliform bacilli positive	

中国

- Raw milk

Related legislation	Item	Specification	Analytical Methods	Reference
GB 5413.10-2010 National food safety standard Determination of vitamin K1 in foods for infants and young children, milk and milk products	Freezing point (°C) (test the sample after milking for 3h; only for Holstein cows)	-0.500～-0.560	GB 5413.38 Determination of freezing point in raw milk	
	Relative density (20°C /4°C)	≥ 1.027	GB 5413.33 Determination of specific gravity in raw milk	
	Protein (g/100g)	≥ 2.8	GB 5009.5 Determination of protein in foods	
	Fat (g/100g)	≥ 3.1	GB 5413.3 Determination of fat in foods for infants and young children, milk and milk products	
	Impurities (mg/kg)	≤ 4.0	GB 5413.30 Determination of impurities in milk and milk products	
	NFMS (g/100g)	≥ 8.1	GB 5413.39 Determination of nonfat total milk solid in milk and milk products	
	Acidity (^{o}T) (only for Holstein cows)	≥ 12～18	GB 5413.34 Determination of acidity in milk and milk products	
	Contaminants	see GB 2762 Maximum levels of contaminants in foods		
	Mycotoxins	see GB 2761 Maximum levels of mycotoxins in foods		
	TPC [cfu/g(mL)]	≤ 2×10^{6}	GB 4789.2 Food microbiological examination: Aerobic plate count	

- Pasteurized milk

Related legislation	Item	Specification	Analytical Methods	Reference
GB 5413.10-2010 National food safety standard Determination of vitamin K1 in foods for infants and young children, milk and milk products	Fat (g/100g) (Only for full cream pasteurized milk)	≥ 3.1	GB 5413.3 Determination of fat in foods for infants and young children, milk and milk products	
	Protein (g/100g)	≥ 2.9	GB 5009.5 Determination of protein in foods	
	NFMS (g/100g)	≥ 8.1	GB 5413.39 Determination of nonfat total milk solid in milk and milk products	
	Acidity (^{o}T)	≥ 12～18	GB 5413.34 Determination of acidity in milk and milk products	

	Mycotoxins	see GB 2761 Maximum levels of mycotoxins in foods		
	TPC (cfu/g or cfu/mL)	n=5; c=2 m=50,000; M=100,000	GB 4789.2 Food microbiological examination: Aerobic plate count	Samples preparation: GB 4789.1 Food microbiological examination: General guidelines and GB 4789.18 Food microbiological examination: Milk and milk products
	Coliform (cfu/g or cfu/mL)	n=5; c=2 m=1; M=5	GB 4789.3 Food microbiological examination: Enumeration of coliforms (plate count method)	
	Staphylococcus aureus	n=5; c=0 0/25g(mL)	GB 4789.10 Food microbiological examination: *Staphylococcus aureus* (Qualitative test)	
	Salmonella	n=5; c=0 0/25g(mL)	GB 4789.4 Food microbiological examination: Salmonella	

- Sterilized milk

Related legislation	Item	Specification	Analytical Methods	Reference
GB 5413.10-2010 National food safety standard Determination of vitamin K1 in foods for infants and young children, milk and milk products	Fat (g/100g) (Only for full cream sterilized milk)	≥ 3.1	GB 5413.3 Determination of fat in foods for infants and young children, milk and milk products	
	Protein (g/100g)	≥ 2.9	GB 5009.5 Determination of protein in foods	
	NFMS (g/100g)	≥ 8.1	GB 5413.39 Determination of nonfat total milk solid in milk and milk products	
	Acidity (^{o}T)	≥ 12～18	GB 5413.34 Determination of acidity in milk and milk products	
	Mycotoxins	see GB 2761 Maximum levels of mycotoxins in foods		
	Microbiological Index	commercial sterilization		GB/T 4789.26 Microbiological examination of food hygiene-Examination of commercial sterilization of canned food

- Modified milk

Related legislation	Item	Specification	Analytical Methods	Reference
GB 5413.10-2010 National food safety standard Determination of vitamin K1 in foods for infants and young children, milk and milk products	Fat (g/100g) (Only for full cream products)	≥ 2.5	GB 5413.3 Determination of fat in foods for infants and young children, milk and milk products	
	Protein (g/100g)	≥ 2.3	GB 5009.5 Determination of protein in foods	
	Mycotoxins	see GB 2761 Maximum levels of mycotoxins in foods		
	Microbiological Index (For the modified milk which produced by sterilization process)	commercial sterilization	GB/T 4789.26 Microbiological examination of food hygiene-Examination of commercial sterilization of canned food	
	TPC (cfu/g or cfu/mL)	n=5; c=2 m=50,000; M=100,000	GB 4789.2 Food microbiological examination: Aerobic plate count	Samples preparation: GB 4789.1 Food microbiological examination: General guidelines and GB 4789.18 Food microbiological examination: Milk and milk products
	Coliform (cfu/g or cfu/mL)	n=5; c=2 m=1; M=5	GB 4789.3 Food microbiological examination: Enumeration of coliforms (plate count method)	
	Staphylococcus aureus	n=5; c=0 0/25g(mL)	GB 4789.10 Food microbiological examination: *Staphylococcus aureus* (Qualitative test)	
	Salmonella	n=5; c=0 0/25g(mL)	GB 4789.4 Food microbiological examination: Salmonella	

- Fermented milk

Related legislation	Item	Specification	Analytical Methods	Reference
GB 5413.10-2010 National food safety standard Determination of vitamin K1 in foods for infants and young children, milk and milk products	Fat (g/100g) (Only for full cream products)	fermented milk: ≥ 3.1 flavored fermented milk: ≥ 2.5	GB 5413.3 Determination of fat in foods for infants and young children, milk and milk products	
	NFMS (g/100g)	fermented milk: ≥ 8.1	GB 5413.39 Determination of nonfat total milk solid in milk and milk products	
	Protein (g/100g)	fermented milk: ≥ 2.9 flavored fermented milk: ≥ 2.3	GB 5009.5 Determination of protein in foods	
	Acidity (^{o}T)	≥ 70.0	GB 5413.34 Determination of acidity in milk and milk products	
	Mycotoxins	see GB 2761 Maximum levels of mycotoxins in foods		
	Coliform (cfu/g or cfu/mL)	n=5; c=2 m=1; M=5	GB 4789.3 Food microbiological examination: Enumeration of coliforms (plate count method)	Samples preparation: GB 4789.1 Food microbiological examination: General guidelines and GB 4789.18 Food microbiological examination: Milk and milk products
	Staphylococcus aureus	n=5; c=0 0/25g(mL)	GB 4789.10 Food microbiological examination: *Staphylococcus aureus* (Qualitative test)	
	Salmonella	n=5; c=0 0/25g(mL)	GB 4789.4 Food microbiological examination: Salmonella	
	Yeasts	≤ 100	GB 4789.15 Food microbiological examination: Enumeration of moulds and yeasts	
	Moulds	≤ 30		

- Evaporated milk, sweetened condensed milk and formulated condensed milk

Related legislation	Item	Specification	Analytical Methods	Reference
GB 5413.10-2010 National food safety standard Determination of vitamin K1 in foods for infants and young children, milk and milk products	Protein (g/100g)	Evaporated milk: ≥ 34% of NFMS Sweetened condensed milk: ≥ 34% of NFMS Formulated evaporated milk: ≥ 4.1 Formulated sweetened condensed milk: ≥ 4.6	GB 5009.5 Determination of protein in foods	NFMS(%)=100% - fat(%) - water(%) - sucrose(%)
	Fat(X) (g/100g)	Evaporated milk: 7.5 ≤ X<15.0 Sweetened condensed milk: 7.5 ≤ X<15.0 Formulated evaporated milk: X ≥ 7.5 Formulated sweetened condensed milk: X ≥ 8.0	GB 5413.3 Determination of fat in foods for infants and young children, milk and milk products	
	Milk solid (g/100g)	Evaporated milk: ≥ 25.0 Sweetened condensed milk: ≥ 28.0	NA	Milk solid(%)=100% - water(%) - sucrose(%)
	sucrose (g/100g)	Sweetened condensed milk: ≤ 45.0 Formulated sweetened condensed milk: ≤ 48.0	GB 5413.5 Determination of lactose and sucrose in foods for infants and young children, milk and milk products	
	Water (%)	Sweetened condensed milk: ≤ 27.0 Formulated sweetened condensed milk: ≤ 28.0	GB 5009.3 Determination of moisture in foods	
	Acidity (^{o}T)	≤ 48.0	GB 5413.34 Determination of acidity in milk and milk products	
	Mycotoxins	see GB 2761 Maximum levels of mycotoxins in foods		

韓国

Related legislation	Item	Specification	Analytical Methods	Reference
Livestock Processing Act	Nonfat milk solid(%)	8.0% <	Dry 5g milk at 98~100°C to get dried material % and then substract milk fat(%)	Notification on Standard and Specification of Livestock Products (No. 2010-2)
	Milk fat(%)	3.0% <	Gerber Method	
	Specific Gravity(at 15°C)	1.028~1.034	Measure specific gravity of sample after standing until there is no bubble using a hydrometer at 15°C	
	Acidity (as lactic acid %)	<0.18%	Titration of 20 ml sample (10 ml milk+10 ml distilled water) with 0.1 N sodium hydroxide solution	
	Bacteria (counts/ml)	Not more than 20,000/ml	Aerobic Plate Count agar (35±1°C 48h or 30±1°C 72h)	
	Coliform	Not more than 2/ml (negative for pasteurized product)	MPN (Most Probable Number) Method Desoxycholate agar (35±1°C 24±2h) or Dehydrated cliform film (35±1°C 24±2h)	

東南アジア

マレーシア

Related legislation	Item	Specification	Analytical Methods	Reference
Food Regulations 1985	Milk fat	> 3.25%	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD
	Non-fat milk solids	> 8.5%	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD
	Added water, permitted food additive, other added substances or trace of antibiotic substance	Prohibited	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD
	Reductase Test	Shall not completely decolorize any methylene blue solution in less than 4 hours	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD
	Metal contaminant	Arsenic: <0.5 mg/kg; Lead: <1 mg/kg; Tin: <40 mg/kg; Mercury: <0.05 mg/kg; Cadmium: <1 mg/kg; Antimony: <1 mg/kg	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD
	Total plate count	< 10^5 cfu/g or /ml, 37°C for 48h (pasteurized milk only)	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD
	Coliform count	< 50 cfu/g, 37°C for 48h (pasteurized milk only)	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD
	Aflatoxin	< 0.5 µg/kg	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD

	Drug residue	Albendazole: <100µg/kg; Amoxicillin: <4 µg/kg; Ampicillin: <4 µg/kg; Avoparcin: <10 µg/kg; Benzylpenicillin: 4 <µg/kg: Cefquinome: <20 µg/kg; Ceftiofur sodium: <100 µg/kg; Cloxacillin: <30µ/kg; Colistin: <50µg/kg; Dexamethazone: <0.3 µg/kg; Dicloxacillin: <30 µg/kg; Dihydrostreptomycin: 200 µg/kg; Diminazene: <150 µg/kg; Erythromycin: <40 µg/kg; Febantel: <100 µ/kg; Fenbendazole: <100 µg/kg; Gentamicin: <100 µg/kg; Isometamidium: <100 µg/kg; Moxidectin: <500 µg/kg; Neomycin: <500 µg/kg; Oxacillin: <30 µg/kg; Oxfendazole: <100 µg/kg; Oxibendazole: <50 µg/kg; Oxytetracycline: <100 µg/kg; Spectinomycin: <200 µg/kg; Spiramycin: <200 µg/kg; Streptomycin: <200 µg/kg; Sulphadiazine: <100 µg/kg; Sulphadimethoxine: <10 µg/kg; Sulphadimidine: <25 µg/kg; Sulphonamide: <100 µg/kg; Tetracycline: <100 µg/kg; Thiabendazole: <100 µg/kg; Tilmicosin: <50 µg/kg; Tylosin: <50 µg/kg	International standards (AOAC, ISO, APHA, etc)	Email communication with Malaysia FSQD

シンガポール

Related legislation	Item	Specification	Analytical Methods	Reference
Food Regulations	Milk fat	> 3.25%	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Milk solids other than milk fat	> 8.5%	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Added water, permitted food additive, other added substances or trace of antibiotic substance	Prohibited	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Metal contaminants	Arsenic: < 0.1 ppm; Lead: < 0.3 ppm; Copper: <20 ppm (only for milk & milk products in tins)	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Antibiotic residues	No person shall import, sell, advertise, manufacture, consign or deliver any milk which contains detectable antibiotic residues or their degradation products	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Total count	< 10^5 cfu/g, 37°C for 48h (pasteurized milk only)	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore
	Coliforms	< 50 cfu/g (pasteurized milk only)	International standards (AOAC, ISO, APHA, etc)	Email communication with AVA Singapore

フィリピン

Related legislation	Item	Specification	Analytical Methods	Reference
Administrative Order No. 132 s.1970: Regulation Prescribing the Standard of Identity and Quality of Milk and Milk Products (B-4. 12-01)	Milk fat	> 3.0%	International standards (AOAC, ISO, APHA, etc)	Email communication with FDA Philippines
	Non-fat milk solids	> 8.25%	International standards (AOAC, ISO, APHA, etc)	Email communication with FDA Philippines
FDA Circular 01-As. 2004: Guidelines for the assessment of microbiological quality of processed foods	Pasteurized milk	Coliforms, cfu/ml: n=5, c=1, m=10^2, M=10^3 (must be negative for *E. coli*); Salmonella/25ml: n=5, c=0, m=0; *Listeria monocytogenes*/25ml: n=5, c=0, m=0; Psychrotrophic bacteria, cfu/ml: n=5, c=1, m=10, M=10^2; SPC/APC, cfu/ml: n=5, c=1, m= 5x10^4, M=10^5	International standards (AOAC, ISO, APHA, etc)	Email communication with FDA Philippines

インドネシア

Related legislation	Item	Specification	Analytical Methods	Reference
Head of the National Agency for Drug and Food Control of the Republic of Indonesia Regulation No. HK.00.06.1.52.4011 of 2009 on Maximum Level of Microbiological and Chemical Contaminants in Food***	Total Plate Count	< 5 x 10^4 cfu/ml	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Coliforms****	< 10MPN/ml	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Escherichia coli	< 3 MPN/ml	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Salmonella sp.	negative per 25ml	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Staphylococcus aureus	< 1x 10^2 cfu/ml	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Listeria monocytogenes	negative per 25ml	SNI 19-2897-1992 Analytical Methods for Microbiological Contaminants	
	Metal contaminants	Arsenic: < 0.1 ppm; Mercury: < 0.03 ppm; Lead: < 0.02 ppm;	SNI 01-2896-1998 Analytical Methods for Metal Contaminants;	
	Aflaxatoxin	Aflaxatoxin M_1: < 0.5 ppb	Not specified	
SNI 01-3951-1995	Quality characteristics for aroma, taste and color	aroma: typical; taste: typical; color: typical	Organoleptic	
	Fat content	Unflavored milk: min 2.80% W/W; Flavored milk: min 1.50% W/W	SNI 01-2782-1998 Analytical Methods for Fresh Milk	
	Density level without fat	Unflavored milk: min 7.7% W/W; Flavored milk: min 7.5% W/W	SNI 01-2782-1998 Analytical Methods for Fresh Milk	
	Reductaste test with methylene blue	0	SNI 01-2782-1998 Analytical Methods for Fresh Milk	
	Protein content	Unflavored milk: min 2.5% W/W; Flavored milk: min 2.5 W/W	SNI 01-2782-1998 Analytical Methods for Fresh Milk	
	Phosphate test	0	SNI 01-2782-1998 Analytical Methods for Fresh Milk	
	Total Plate Count	< 3 x 10^4	SNI 2897:2008 Analytical Methods for Microbiological Contaminants in Meat, Eggs and Milk, and its Products*****	
	Presumptive Coliform	< 10 MPN/ml	SNI 2897:2008 Analytical Methods for Microbiological Contaminants in Meat, Eggs and Milk, and its Products*****	

	Metal contaminants	Lead: < 1.0 ppm; Cooper: < 2.0 ppm; Zinc: < 5 ppm	SNI 01-2896-1998 Analytical Methods for Metal Contaminants;	
	Arsenic	< 1.0 ppm	SNI 01-4866-1998 Analytical Methods for Arsenic	
	Preservatives	As specified in Minister of Health of the Republic of Indonesia Regulation No. 722/Menkes/Per/IX/88 on Food Additives and Regulation No. 1168/Menkes/PER/X/1999 on Food Additives	SNI 01-2894-1992 Analytical Methods for Food Additives/Preservatives;	
	Sampling	As specified in SNI 01-3951-1995 Item 5		

タイ

Related legislation	Item	Specification	Analytical Methods	Reference
Notification of the Ministry of Public Health No. 265 B.E. 2545 (2002)	Milk protein content	Not less than 2.8% by weight	Kjeldahl	AOAC standard method
	Milk solid non-fat and milk fat		Acid hydrolysis, solvent extraction	
	* Whole milk	Milk solid non-fat content not less than 8.25% by weight, milk fat content not less than 3.2% by weight		
	* Partly skimmed milk	Milk solid non-fat content not less than 8.5% by weight, milk fat content more than 0.1% by weight but less than 3.2% by weight		
	* Skimmed milk	Milk solid non-fat content not less than 8.8% by weight, milk fat content not more than 0.1% by weight		
	Pathogenic microorganisms	Free from pathogenic microorganisms		Bacteriological Analytical Manual,
	Bacterial count in pasteurized milk	Not more than 10,000 in 1 ml. at manufacturing factory and not more than 50,000 at all time after that to the expiry date		Bacteriological Analytical Manual,
	Bacterial count in sterilized and UHT milk	Not be detected in 1 ml		Bacteriological Analytical Manual,
	Escherichia coli	Not detected in 0.1 ml. of heat treated milk		Bacteriological Analytical Manual,
	Coliform bacteria	Not more than 100 in 1 ml. of pasteurized milk at manufacturing factory		Bacteriological Analytical Manual,
	Bacillus cereus	Not more than 100 in 1 ml. of pasteurized milk		Bacteriological Analytical Manual,
	Contaminant	Free of toxic substances and contaminants in quantity which may be hazardous to health		

	Food Additives	・Permitted food additives to be used in milk powder and filled milk powder (Maximum level): ・Stabilizers Sodium citrates , Potassium citrates - 5,000 mg/kg for single used or combination used, calculated on dry basis. ・Firming agents Potassium chloride, Calcium chloride - appropriate quantities necessary for production.		
		・Acidity regulators Sodium phosphates, Potassium phosphates, Diphosphates, Triphosphates, Polyphosphates, Sodium carbonates, Potassium carbonates - 5,000 for single used or combination used, calculated on dry basis. ・Emulsifiers Lecithins or phopholipids from natural sources. appropriate quantities necessary for production. ・Mono- and diglycerides of fatty acids. - 2,500 mg/kg ・Anti-caking agents Calcium carbonates, Tricalcium orthophosphate, Trimagnesium orthophosphate, Magnesium carbonate, Megnesium oxide, Silicon dioxide, amorphous, Calcium silicate, Magnesium silicate, Sodium aluminosilicate, Calcium aluminium silicate, Aluminium silicate - 10,000 for single use or combination use - ・Polydimethylsiloxane - 10 mg/kg ・Antioxidants L-Ascorbic acid, Sodium ascorbate, Ascorbyl palmitate - 500 mg/kg calculated as ascorbic acid Butylated hydroxyanisole BHA 100 mg/kg		

		・Permitted food additives to be used in condensed milk, recombined condensed milk, filled condensed milk. ・Stabilizers Sodium citrates, Potassium citrates, Calcium citrates - 2,000 mg/kg for single use or 3,000 mg/kg for combination use, calculated on dry basis. ・Firming agents Potassium chloride, Calcium chloride - 2,000 mg/kg for single use or 3,000 mg/kg for combination use, calculated on dry basis. ・Acidity regulators Calcium carbonates, Sodium phosphates, Potassium phosphates, Calcium phosphates, Diphosphates, Triphosphates, Polyphosphates, Sodium carbonates, Potassium carbonates - 2,000 mg/kg for single use or 3,000 mg/kg for combination use, calculated on dry basis ・Emulsifier Lecithins - appropriate quantities necessary for production. ・Thickener Carrageenan 150 mg/kg		

ベトナム

Related legislation	Item	Specification	Analytical Methods	Reference
QCVN 5-1: 2010/BYT: National technical regulation for liquid milk	NA	NA	NA	NA

4. 総括報告

4.1 日本、韓国及び中国における食品の規格基準・分析法の比較評価

4.1.1 調査概要

今年度は日本、韓国および中国の「即席めん」「清涼飲料水」「冷凍食品」および「牛乳」について分析法、衛生関連項目を中心に調査した。結果のまとめ方については、我が国の食品衛生法に基づく「食品、添加物等の規格基準」から規格基準項目とその分析法をベースにし、それに韓国、中国での調査結果を付属資料として、A3 差し込みの一覧表（以下「一覧表」）に整理した。

4.1.2 各国の調査結果

4.1.2.1 日本

調査対象品目のうち「即席めん類」、「清涼飲料水」及び「冷凍食品」に関しては、我が国の食品衛生法に基づく「食品、添加物等の規格基準」（昭和 34 年 12 月 28 日　厚生省告示第 370 号）に規定されており、A．食品一般の成分規格とD．各条（即席めん類、清涼飲料水、冷凍食品）の両方の規格基準に適合することが必要である（但し、B．食品一般の製造、加工及び調理基準，C．食品一般の保存基準については、アンケート調査で分析方法を含めて各国との整合性をとるのは困難が予想されたため、調査からは割愛し当該食品の規格基準の中で各国の状況に併せて記載してもらった）ことから、これらの規格基準とその分析法について記載した。

一方、「牛乳」については「乳及び乳製品の成分規格等に関する省令（乳等省令）」（昭和 26 年 12 月 27 日　厚生省令第 52 号）に規定されており、規格基準項目とその分析法を記載した。

残留農薬等は「食品、添加物等の規格基準」の中の「食品一般」に規定されており、その公的分析法は「告示分析法」と「通知分析法」とがある。前者は、「不検出」という基準が設定されているものの分析法であり、この場合告示で示している法分析により「不検出」であるか否かを確認し、基準への適合性を判断する[1]。一方、「不検出」の基準がある農薬等以外のものの分析法については通知で示されている[1)]。

4.1.2.2 韓国

食品医薬品安全庁が管掌する食品衛生法に基づく「食品の基準及び規格（公定書）」が告示（食品医薬品安全庁告示第 2010-87 号）されている[2]。各分析法については、Korea

[1] 厚生労働省ホームページ＞分野別施策［食品中の残留農薬等］＞ポジティブリスト制度について（Q&A）。URL : www.mhlw.go.jp/topics/bukyoku/iyaku/syoku-anzen/zanryu2/060329-1.html（アクセス日：2011.3.25）

[2] 韓国法規　「食品の基準及び規格」（公定書）「食品添加物の基準及び規格」（公定書）目次。URL：http://www.kbn-japan.com/shohisha541-FA.htm　（アクセス日：2011.3.25）

Food Code に記載されており、一覧表には出典の欄に示した。

4.1.2.3　中国

中国の分析法の体系は、中国国家標準としての GB 規格等が制定されており次のようなものがある[3]。

GB　　：中華人民共和国　強制国家標準
GB/T　：中華人民共和国　推奨国家標準（任意規格）
GB/Z　：中華人民共和国　国家標準化指導性技術書

これらの標準類の新しいものは国際規格（ISO、IEC 等）と整合がはかられているものが多い。一覧表の中で各分析法の出典の欄にこれらの標準類を記載した。なお、中国の規格基準項目で日本、韓国の項目と整合のとれないものについては別に項目を設定して一覧表に記載した。

4.1.3　日本、韓国、中国における食品の規格基準一覧表（衛生関連項目）

一覧表に整理し、付属資料 I として別表に示した。

一覧表の「食品一般」について、この欄は食品全般に共通の規格基準項目等の記載をねらいとしたものであるが、中国からのアンケート回答では個別食品毎に定められた項目が記載されていた。そのため我が国における抗生物質等は全ての食品に含まれてはならないとする食品一般の成分規格とはフェーズが異なっているが、一覧表としての全体把握上影響はないのでそのまま記載することにした。

牛乳について、中国からのアンケート調査結果では Cow's milk として、Raw milk, Pasteuraized milk, Sterilized milk, Modified milk, Fermented milk および Evaporated milk, sweetened condensed milk and formulated condensed milk の規格基準とそれらの分析法についての回答がなされたが、我が国の牛乳の規格基準に近いものとして、Pasteurized milk の規格基準、試験法を一覧表に掲げた。

4.1.4　一覧表からの考察

一覧表から 3 カ国の規格基準およびその分析法について考察した。

- 我が国と韓国とは法令の構成がよく似ており比較がしやすい。
- 調査対象食品の規格基準項目について、中国では冷凍食品のように我が国、韓国とは異なり、原材料（小麦粉及び米、家禽、海産物）毎に分類されて項目が設定されている。
- 食の最も基本となる安全性、衛生に関する項目とその基準値は人体への耐容量、生涯リスクの観点から比較的共通性があるものと解されるが、各国で微妙に異なるものや大きく異なるものが見受けられる。これは国民毎の曝露量や摂取量の違い、安全性や衛生状態に関する国内での歴史的経緯、各国の食文化の違い、輸出入相手国との関係から当事者間で調整されてきた側面および近年に至ってはコーデックスとの整合性

[3] 標準関係略語説明：CSBTS/GB 規格。CSBTS　中華人民共和国規格協会 (アップデート：2010.11.1)。URL：http://www2u.biglobe.ne.jp/~standard/bdlist/csbts.htm　（アクセス日：2011.3.25）

の進展状況などにより異なるものと考えられる。このような背景や理由から規格基準項目と基準値のハーモナイゼーションは一足飛びの進展には難しい面がある。

- 分析法については主に微生物分析法と化学的分析法であるが、これらについては各国とも共通性がある。前者について対象微生物が同じであれば培地、培養温度・時間など培養条件に大きな差のあることはない。後者についても重金属類や残留農薬など、前処理としての試験溶液の調製と分析機器による定量が主体であり、分析テクニック上の操作は多少異なることはあるが、大局においての違いは少ない。
- 分析法についてのハーモナイゼーションで重要な課題は、分析法の統一よりもその分析結果の整合性である。即ち、分析の正確さ（真値からのずれ）と分析精度（分析値のバラツキ幅）の管理である。
- 規格基準のハーモナイゼーションは上述のとおり各国の国情による面が大きく統一の難しさが想像される。一方、分析法のハーモナイゼーションは純粋に技術論であり解決は可能である。しかしながら、これにしてもASEAN＋3ヵ国が真にハーモナイゼーションを望み協力していく体制がなければ容易には進まないであろう。

4.2　東南アジア諸国における食品関連法体系と規格基準

4.2.1 東南アジア諸国における食品関連法体系

ASEAN 地域における各国の食品関連法体系は、それぞれ固有の法体系を持ち、お互いに異なっている。例えばマレーシアやシンガポールのように、生産農場（現場）から食卓までの食品安全、品質について一つの行政機関が監督・管理している場合と、インドネシア、フィリピン、タイ、ベトナムのように、一次生産から加工食品までの各段階において、複数の行政機関が関与している場合がある。一方類似点としては、以下に示す通り、それらの国ではそれぞれ主たる法としての「一般食品法（general food law）」がある。

インドネシア：Act of the Republic of Indonesia No.7 of 1996 on Food
マレーシア：Food Act 1983
フィリピン：Food, Drug and Devices, and Cosmetics Act
シンガポール：Sale of Food Act
タイ：Food Act B.E. 2522 1979
ベトナム：Law No.55/2010/QH12 of June 17, 2010 on Food Safety

4.2.2　東南アジア諸国における食品の規格基準とハーモナイゼーション

食品の規格基準については、多くの国において必須基準と任意基準を採用している。それらの規格基準は、マレーシア、フィリピン、シンガポール、タイ、ベトナムでは主たる食品行政機関が策定しており、インドネシアでは主として基準庁（standardization body）が策定している。任意基準については、任意といえども、行政/法的手続きにおいて引用される場合にあっては、必須として取り扱われる場合が少なくない。

現在、2015 年を目標に ASEAN 経済共同体（Economic Community）構想に向かって進んでおり、地域各国においては現在食品規格のハーモナイゼーションに向けた過程にある。食品規格のハーモナイゼーションは、単に地域内における食品貿易や経済協力を促進するだけでなく、食品安全の観点から統一した公衆衛生のレベルを提供し、より高い食品安全と消費者保護に寄与することとなる。

一方、食品規格のハーモナイゼーションの現実は、なかなか進んでいないといえる。例えば本事業において調査した「即席めん」や「炭酸飲料」といった普遍的であり、ハーモナイゼーションも比較的容易と考えられる規格基準についても、以下に示すように国毎にかなりの差異が認められ、その困難さが伺える。

例 1：「即席めん」規格基準の比較

	インドネシア	マレーシア	フィリピン	シンガポール	タイ	ベトナム
水分（揚げめん）(% W/W)	≤10	≤10	≤8	≤13	≤10	≤10
たんぱく含量（小麦）(% W/W)	≥8.5	≥8.5	特定せず	≥9.0	≥8.5	特定せず
一般生菌数 (cfu/g)	≤1000	特定せず	特定せず	特定せず	≤100	特定せず

例 2：「炭酸飲料」規格基準の比較

	インドネシア	マレーシア	フィリピン	シンガポール	タイ	ベトナム
鉛 (mg/kg)	≤0.2	≤0.2	Codex	≤0.2	≤0.5	≤0.05
カビ・酵母 (cfu/ml)	≤50	≤10	特定せず	規定なし	規定なし	≤10

5. 国際会議報告

平成 21、22 年度農林水産省食品産業海外展開支援事業「東アジアの食品規格・基準と分析法の調査と情報の共有化」に関する調査結果の報告の一環として、2011 年 3 月 4 日（金）にタイ バンコクの Pathumwan Princess Hotel において、下記の国際会議を開催した。

アジア・太平洋地域の食品規格基準、資源・環境対策に係る情報の共有化
に関する国際会議－食品安全と健康に係る食品産業の挑戦と機会－
International Conference for Sharing Information on Food Standards, Resource and Environmental Conservation for Food Industries in Asia Pacific
－Challenges and Opportunities for Food Safety & Human Health－

本国際会議の背景・経緯: 「第 2 回 ASEAN+3 食料安全保障の協力戦略に関するラウンドテーブル会合」が、2010 年 5 月東京で開催され、農業と食品産業の振興のための域内での対話の必要性について認識が共有され、更に、2010 年 10 月新潟において開催された「APEC 食料安全保障担当大臣会合」においても、「食品企業の品質管理や資源・環境対策に関する対話の実施」が行動計画の一つとして位置付けられた。

本国際会議の目的：地域の食品産業の品質・安全管理の能力を強化し、交際競争力を高めるためには、当該地域における食品の規格基準、分析方法の理解が重要である。本国際会議は、(1)アジア・太平洋地域における食品の規格基準、分析方法の調査を行い、お互いの理解に資するため、及び (2)同地域におけるそれら将来の統一、ハーモナイゼーションへの可能性に資するため、そしてそれらのことにより (3)地域内の食品の公正な取引とビジネスチャンスに寄与することであった。

本国際会議は、平成 21、22 年度農林水産省食品産業海外展開支援事業「東アジアの食品規格・基準と分析法の調査と情報の共有化」に関する調査結果について日本、中国、韓国および東南アジア支部からの報告（Session 1）に加えて、インドネシア、フィリピンおよびタイより、ASEAN における食品規格・基準や農産物基準のハーモナイゼーションに向けた行政および食品産業の活動とその役割についての講演（Session 2)。更に食品安全、環境問題に関わり（Session 3)、ASEAN 地域における食品の安定供給と食品安全に関する FAO 現地事務所担当者からの講演および食品企業における環境保護・保全に対する取組みについて、特に現地進出企業である味の素（株）タイ工場における取組みに関する事例報告、問題点、課題等が紹介された。

会議には予想をはるかに上回り 100 名以上の参加者があり、特にタイの行政関係者ばかりでなく、在タイの ASEAN および APEC 各国大使館、更にはインドネシア、フィリピン、香港から行政関係者の参加もあり、ASEAN における食品規格・基準や農産物基準のハーモナイゼーションに向けた行政および食品産業の関心の高さが伺え、予想を超える盛会であった。

日本・韓国・中国における食品の規格基準等一覧表　（衛生関連項目）

日本						韓国						中国					
食品	分類	項目	基準	試験法	出典	食品	分類	項目	基準	試験法	出典	分類	分類	項目	基準	試験法	出典
食品一般	微生物	食品一般に共通の微生物基準はない。個別食品で規定。				食品一般		食中毒細菌	不検出	系統的試験及び個別試験法の概要: 無菌的試料調製→培養→選択的培地で培養後計測及び推定ｺﾛﾆｰを釣菌→確定試験	Korea Food Code（以下、KFCと略）(Article 10-3) ｻﾙﾓﾈﾗ(10.3.11)、黄色ﾌﾞﾄﾞｳ球菌(10.3.12)、腸炎ﾋﾞﾌﾞﾘｵ(10.3.13)、ｳｪﾙｼｭ菌(10.3.14)、ﾘｽﾃﾘｱﾓﾉｻｲﾄｹﾞﾈｼｽ(10.3.15)、大腸菌O157:H7(10.3.16)、ｴﾙｼﾆｱ･ｴﾝﾃﾛｺﾘﾁｶ(10.3.17)、ｾﾚｳｽ菌(10.3.18)、ｶﾝﾋﾟﾛﾊﾞｸﾀｰ･ｼﾞｪｼﾞｭﾆ(10.3.19)、ﾎﾞﾂﾘﾇｽ菌(10.3.20)	食品一般		食品毎に基準: 生菌数（FDA/BAM）、大腸菌群（FDA/BAM）、サルモネラ（FDA/BAM）、黄色ブドウ球菌（1st:AOAC987.09/ISO6888-1:1999、2nd:AOAC975.55/ISO6888-1:1999、3rd:AOAC987.07）、カビ・酵母、リステリア菌、乳酸菌、エンテロバクター・サカザキ（1st:TS22964:2006、2nd:FDAに従う			
	化学物質	抗生物質又は抗菌性物質	全ての食品で含有してはならない。	通知試験法: ・一斉試験法 ・個別試験法	食品に残留する農薬、飼料添加物又は動物用医薬品の成分である物質の試験法			動物医薬	不検出	ﾆﾄﾛﾌﾗﾝ類等: 簡易予備試験は免疫反応試験、 確定試験はLC/GC-MS	KFC(Article 10.5)			食品毎に基準: 鉛（原子吸光法／原子蛍光法／比色法／ポーラログラフィー:GB/T5009.12-2010）、カドミウム（原子吸光法／比色法／原子蛍光法:GB/T5009.15-2003）、水銀（総水銀:原子蛍光法／原子吸光法／比色法 メチル水銀:GC／原子吸光法:GB･T5009.17-2003）、ヒ素（総ヒ素:原子吸光法／銀塩法／スポットテスト／還元比色法:GB･T5009.11-2003）、クロム（原子吸光法／ポーラログラフィー:GB/T5009.123-2003）、アルミニウム:小麦粉製品:100mg/kg（光電比色法:GB/T5009.182-2003）、セレン（原子蛍光法／蛍光法:GB/T5009.93-2010:GB/T5009.93-2010）、フッ素（比色法／イオン選択電極法:GB/T5009.18-2003）、ベンツピレン（蛍光法／比色法:GB/T5009.27-2003）、Ｎ－ニトロサミン（GC-TEA／GC-MS:GB/T5009.26.2003）、PCB類（GC-MS／GC:GB/T5009.190.2006）、亜硝酸（イオンクロマト／分光法／比色法:GB/T5009.33-2010）、希土類（分光法:GB/T5009.94-2003）、アフラトキシンB1（TLC／ELISA:GB/T5009.22-2003）、アフラトキシンM1（TLC／ELISA:GB/T5009.24-2010）、デオキシニバレンール（TLC／ELISA:GB/T5009.111-2003）、パツリン:リンゴ、ホーソン製品:50μ g/kg（TLC:GB/T5009.185-2003）、		
		不検出の農薬等成分物質	全ての食品:不検出（19物質）	告示試験法	食品、添加物等の規格基準 A　食品一般の成分規格			残留農薬（最大残留量）	個別の食品毎に規定	系統的試験及び個別試験法の概要: 検体調製→溶剤抽出→精製→機器分析:GC、GC-MS、LC、LC-MS	KFC(Article 10.4)						
		残留農薬	個別の食品毎に規定	通知試験法: ・一斉試験法 ・個別試験法	食品に残留する農薬、飼料添加物又は動物用医薬品の成分である物質の試験法			異物	不衛生異物:不検出	ｽﾄﾚｰﾅｰ法（微粉末）、ろ過法（液体）、Wildemanﾌﾗｽｺ法（昆虫、動物の毛/軽量物）、沈殿法（ねずみ糞等、重量物）	KFC (Article 10. 9.2.1)						
		残留農薬:一律基準	個別基準が定められていない食品の一律基準:0.01ppm以下						鉄片（金属異物）:10.0mg/kg以下	金属異物: 試料調製→棒磁石（10,000ｶﾞｳｽ）で10分間集める→乾燥後秤量→篩で分離しｻｲｽﾞ測定							
									他の金属物:2.0mm長未満								
即席めん類		酸価	3以下（油脂処理品）	ｱﾙｶﾘ滴定	食品、添加物等の規格基準 D　各条 ○即席めん類の成分規格	即席めん類		油の酸価	2.5以下	滴定法	KFC (Article 10. 1.1.5.3.1)	即席めん類		酸価（脂肪として）	1.8KOH/mg/g以下（油揚げ）	溶媒抽出法／滴定法	GB/T 5009.56 GB/T 5009.37
		（又は）過酸化物価	30以下（油脂処理品）	ﾁｵ硫酸ﾅﾄﾘｳﾑ滴定				油の過酸化物価	50以下	滴定法	KFC(Article 10. 1.1.5.3.5)			過酸化物価（脂肪として）	0.25g/100g以下（油揚げ）	滴定法／比色法	
														カルボニル価（脂肪として）	20meq/kg以下	比色法	
								細菌数	1,000,000以下（アルコール処理製品）	寒天平板培養	KFC(Article 10.3.5.1)			総菌数	1000cfu/g以下（油揚げ）	0-1と同様	GB 4789.2
									100,000以下（加熱殺菌製品）						50,000cfu/g以下（非油揚げ）		
								大腸菌	陰性（アルコール処理製品）	EC醗酵管→推定試験→確定試験	KFC(Article 10.3.8)						
								大腸菌群	陰性（加熱殺菌製品）	LB醗酵管→推定試験→確定試験	KFC(Article 10.3.7)			大腸菌群	30MPN/100g以下（油揚げ）	食品一般と同様	GB 4789.3
															150MPN/100g以下（非油揚げ）		
														水分	油揚げ:8g/100g以下 非油揚げ:12g/100g以下	直接乾燥法／減圧乾燥法/蒸留法／カールフィッシャー法	GB 5009.3
														鉛	0.5mg/kg以下	原子吸光法／原子蛍光法／比色法／ポーラログラフィー	GB 5009.12
														総ヒ素	0.5mg/kg以下	総ヒ素:原子吸光法／銀塩法／スポットテスト／還元比色法	GB/T 5009.11
														病原体	陰性	各種培地で培養→確認試験（生化学・血清学試験）	GB 4789.4, GB 4789.10, GB/T 4789.5, GB/T 4789.12
														過酸化物（脂肪として）	20meq/100g以下（油揚げ）	滴定法／比色法	GB/T 5009.56 GB/T 5009.37

清涼飲料水		混濁	認めない	（目視）	食品、添加物等の規格基準 D 各条 ○清涼飲料水の成分規格
		沈殿物	認めない	（目視）	
		ヒ素	不検出	湿式分解法又は乾式分解法→比色法	
		鉛	不検出	湿式分解法又は乾式分解法→原子吸光法又はﾎﾟｰﾗﾛｸﾞﾗﾌｨｰ	
		カドミウム	不検出		
		スズ	150.0ppm以下	湿式分解法又は乾式分解法→比色法又はﾎﾟｰﾗﾛｸﾞﾗﾌｨｰ	
		大腸菌群	陰性	推定試験→確定試験→完全試験	
		パツリン	0.050ppm以下（りんごの搾汁、搾汁果汁のみ原料のも	溶媒抽出→LC（定量）、LC-MS又はGC-MS（確認）	
冷凍食品	無加熱摂取品	細菌数	100,000/g以下	標準平板培養	食品、添加物等の規格基準 D 各条 ○冷凍食品の成分規格
		大腸菌群	陰性	ﾃﾞｿｷｼｺﾚｰﾄ寒天培養→推定試験→確定試験	
	加熱後摂取品	細菌数	100,000/g以下	標準平板培養	
		大腸菌群	陰性	ﾃﾞｿｷｼｺﾚｰﾄ寒天培養→推定試験→確定試験	
	加熱後摂取品で凍結直前加熱以	細菌数	3,000,000/g以下	標準平板培養	
		大腸菌	陰性	EC醗酵管→推定試験→確定試験	
	生食用冷凍魚介類	細菌数	100,000/g以下	標準平板培養	
		大腸菌群	陰性	ﾃﾞｿｷｼｺﾚｰﾄ寒天培養→推定試験→確定試験	
		腸炎ビブリオ最確数	100/g以下	ｱﾙｶﾘﾍﾟﾌﾄﾝ水培養→TCBS寒天培養	

炭酸飲料					
		鉛	0.3mg/kg以下	湿式分解法、乾式灰化法、溶媒抽出法→ICP法で定量	KFC(Article 2010, 7.1.2.1)
		カドミウム	0.1mg/kg以下		KFC(2010, 7.1.2.2)
		スズ	150mg/kg以下（缶詰製品）	湿式分解法、乾式灰化法→比色定量又はﾎﾟｰﾗﾛｸﾞﾗﾌｨｰ	KFC(2010, 7.1.2.6)
		大腸菌群	陰性（加熱殺菌製品）	LB醗酵管→推定試験→確定試験	KFC(Article 10.3.7)
		細菌数	100/mL以下	寒天平板培養	KFC(10.3.5.1)
冷凍食品	無加熱	細菌数	100,000/g以下（発酵品又は乳酸菌添加品を除く）	寒天平板培養	KFC(10.3.5.1)
		大腸菌群	10/g以下	ﾃﾞｿｷｼｺﾚｰﾄ培地又は脱水coliformﾌｨﾙﾑで培養	KFC(Article 10.3.7)
		乳酸菌	規定量以上	BCP平板培養	KFC(Article 10.3.9)
	加熱後・凍結直前加熱	細菌数	100,000/g以下（発酵品又は乳酸菌添加品を除く）	寒天平板培養	KFC(10.3.5.1)
		大腸菌群	10/g以下	LB醗酵管→推定試験→確定試験	KFC(Article 10.3.7)
		乳酸菌	規定量以上	BCP平板培養	KFC(Article 10.3.9)
	加熱後・凍結直前無加熱	細菌数	100,000/g以下（発酵品又は乳酸菌添加品を除く）	寒天平板培養	KFC(10.3.5.1)
		大腸菌	陰性（アルコール処理品）	EC醗酵管→推定試験→確定試験	KFC(Article 10.3.8)
		乳酸菌	規定量以上	BCP平板培養	KFC(Article 10.3.9)

炭酸飲料				
	総ヒ素	0.2mg/L以下（ヒ素として）	比色法／呈色法	GB 5009.11
	鉛	0.3mg/L以下	原子吸光法／ﾎﾟｰﾗﾛｸﾞﾗﾌｨｰ／比色法	GB 5009.12
	大腸菌群	6MPN/100mL以下	培養	GB 4789.3
	総菌数	100cfu/mL以下	培養	GB 4789.2
	カビ	10cfu/mL以下	培養	GB 4789.15
	酵母	10cfu/mL以下	培養	GB 4789.15
	病原体（サルモネラ）	陰性	培養、生化学試験／血清学試験	GB 4789.4
	病原体（赤痢菌）	陰性	培養、生化学試験／血清学試験	GB 4789.5
	病原体（黄色ブドウ球菌）	陰性	培養	GB 4789.10
	二酸化炭素容量	1.5以上	還元装置法／滴定法	GB/T 12143.4
	果汁含量	2.5%以上	NA	果汁添加炭酸飲料のみ
	銅	5mg/L以下	原子吸光法／比色法	GB 5009.13
	官能評価	異臭味のないこと	官能検査	
冷凍食品	小麦粉及び米原料の即席冷凍包装食品	鉛	0.5mg/kg	原子吸光法	GB 5009.12
		総ヒ素	0.5mg/kg	原子蛍光法	GB/T 5009.11
		酸価	3mg/g	滴定法	GB/T 5530
		過酸化物価（対脂肪）	0.15/100g	滴定法	GB/T 5538
		総揮発性塩基性窒素	15mg/100g	滴定法	SC/T 3032
		アフラトキシンB1	5μ g/kg	TLC	GB/T 5009.22
		生菌数	3,000,000cfu/g（生） 100,000cfu/g（凍結前加熱）	培養	GB/T 4789.2
		大腸菌群	230MPN/100g（凍結前加熱）	培養	GB 4789.3
		サルモネラ	陰性	培養→血清学試験	GB 4789.4
		赤痢菌	陰性	生化学試験→血清学試験	GB/T 4789.5
		黄色ブドウ球菌	陰性	生化学試験→血清凝固物質試験	GB 4789.10
		カビ	50cfu/g以下（凍結前加熱）	顕鏡試験計測法	GB 4789.15

牛乳	飲用乳	比重(15℃)	1.028～1.034　注① 1.028～1.03　注②	浮ひよう式牛乳比重計	乳等省令
		酸度(乳酸%)	0.18以下　注①③ 0.20以下　注②③	水酸化ﾅﾄﾘｳﾑ液で滴定	
		無脂乳固形分(%)	8.0以上	乾燥重量(%)から乳脂肪(%)の差引	
		乳脂肪分(%)	3.0以上	ｹﾞﾙﾍﾞ乳脂計	
		細菌数/mL	50,000以下　注④	標準平板培養	
		大腸菌群	陰性	BGLB培養→推定試験→確定試験	

牛乳	家畜加工法	比重(15℃)	1.028～1.034	比重計で測定	家畜製品規格基準に関する告示(又は通知)(No.2010-2)
		酸度(乳酸%)	0.18未満	0.1N-NaOH液で滴定	
		無脂乳固形分(%)	8.0を超える	乾物秤量し、乳脂肪分を差し引く	
		乳脂肪分(%)	3.0を超える	Gerber法	
		細菌数/mL	20,000以下	好気性平板培地で培養	
		大腸菌群	2/mL以下(殺菌製品は陰性)	MPN法(ﾃﾞｿｷｼｺﾚｰﾄ又は脱水coliform filmで培養)	

	生および冷凍家禽製品	水銀	0.05mg/kg	原子蛍光光度法	
	動物起源生および冷凍海産物	カドミウム(対魚)	0.1mg/kg	原子吸光法	GB/T 5009.15
牛乳	殺菌乳				
		酸度(° T)	12～18以上		GB 5413.34
		無脂乳固形分(g/100g)	8.1以下	酸度定量法	GB 5413.39
		脂肪(g/100g)	3.1以上	蛋白質定量法	GB 5413.3
		総菌数(cfu/g(mL))	n=5;c=2,m=50,000;M=100,000	培養	GB 4789.2
		大腸菌群(cfu/g(mL))	n=5:c=2,m=1;M=5	培養	GB 4789.3
		蛋白質(g/100g)	2.9以上	無脂乳固形分定量法	GB 5009.5
		マイコトキシン	食品中参照	培養	GB 2761
		黄色ブドウ球菌	n=5;c=0, 0/25g(mL)	培養	GB 4789.10
		サルモネラ	n=5;c=0, 0/25g(mL)	培養	GB 4789.4

注①:　ジャージー種の牛乳のみを原料とするもの以外のもの

注②:　ジャージー種の牛乳のみを原料とするもの

注③:　常温保存可能製品にあっては、29～31℃14日または54～56℃7日間保存後の上昇が0.02%以内

注④:　常温保存可能製品にあっては、29～31℃14日または54～56℃7日間保存のものについて