Guide To
Nutrition Labelling and Claims

as at December 2010

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FOREWORD

Over 25 years ago, Ministry of Health enacted the Food Act 1983, followed by Food Regulations 1985 with the main objectives of protecting the public against health hazards in food and fraud in the preparation, sale and use of foods. Over the years, numerous amendments have been made to these regulations, in response to global regulatory developments, requests of the food industry and consumer needs. One of such developments was the enactment of regulations for mandatory nutrition labelling and nutrition claims in 2003. The key focus of these regulations is to enable manufacturers to emphasise the nutritional properties of a food product, thereby guiding the consumers in making better food choices.

After the enactment of these regulations, several amendments have been made, in keeping with the needs of all stakeholders. In amending these regulations, our emphasis has always been to make decisions based on the most up-to-date scientific evidence available locally or internationally. We have also recognised that the regulations must be practical and not impose additional costs on food manufacturers which may eventually have to be borne by the consumers. We believe that regulations should be clear, consistent and fair, giving businesses confidence to make long term investments, while effective in safe-guarding consumer safety.

It has been the practice of the Ministry of Health to enact regulations in full consultation with all stakeholders. We would like to further invite comments and feedback from all stakeholders to determine if further legislative changes are required in order to ensure they meet the needs of the consumers. To ensure that these regulations meet the objectives of helping consumers make food choices, further efforts are required to education consumers on the appropriate use of such nutrition information on food labels. I would also like to take this opportunity to call on the food industry to fully comply with these regulations.

Ms Noraini Dato' Mohd Othman
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INTRODUCTION

The primary objective of nutrition labelling and claims is to describe the nutritional qualities of a food product factually and informatively, thereby assisting the consumer in making better food choices when planning their daily meals. Such nutrition information on food labels is equally important to the food industry as it provides a means for food manufacturers and retailers to become more aware of the nutritional properties of their products and be encouraged to emphasise these properties to consumers. Food manufacturers have a social responsibility to contribute positively to the healthy lifestyle programmes of the health authorities.

In cognizance of the above, the Ministry of Health Malaysia has gazetted and enforced Regulations on Nutrition Labelling and Claims. Nutrition labelling describes the nutrient content of the food product. The nutrients are declared as a table in one section of a food label, commonly known as a nutrition information panel (NIP). As for the claims, three (3) types on nutrition claims are permitted in Malaysia, namely nutrient content claim, nutrient comparative claim and nutrient function claim.

The Regulations on Nutrition Labelling and Claims were drafted by the Expert Committee on Nutrition, Health Claims and Advertisement. Members of the Committee comprise nutritionists, dieticians, medical doctors and food scientists from various departments and agencies and the academia. The Committee had received and reviewed numerous applications from the food industry, particularly for new nutrient function claims. Recognising the importance of "other food components" to human health, several such claims have been approved based on scientific findings submitted by the applicants.

A system has been established to consider applications from the industry for such claims, as well as other proposals to amend these regulations. Instruction for submitting applications, the form required and the conditions to be met have been clearly stated. All proposals for amendment are also subjected to public comments before final acceptance.

In view of the numerous amendments made to the regulations, it is essential to update this Guide to Nutrition Labelling and Claims that was first published in 2005 and updated in 2007. The current edition compiles all the nutrient function claims as well as other related amendments since 2003 till the end of December 2010. It is hoped that this Guide will be able to assist the food industry, the regulatory authorities, all related professionals and the consumers in the understanding and application of the regulations.

Dr Tee E Siong
Chairman,
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CODEX ALIMENTARIUS

THE NEED FOR AN INTERNATIONAL FOOD CODE

Food laws are not a 21st-century invention. Even in ancient civilisations, rules and systems existed to ensure fair trade practices as well as food quality and safety for the people. In the same tradition, different countries began developing their own food standards, towards the early 20th-century.

However, different sets of standards gave rise to trade barriers, as governments were wary of importing food from countries that had different food standards. The situation demanded for a good code that would harmonise food laws from all countries and allow manufacturers to export their products worldwide.

CODEX ALIMENTARIUS

In 1962, the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) established the Codex Alimentarius Commission and implemented a joint FAO/WHO food standards programme. The main objectives of Codex Alimentarius Commission are:

a) Protecting the health of the consumers and ensuring fair practices in the food trade;
b) Promoting coordination of all food standards work undertaken by international governmental and non-governmental organizations;
c) Amending published standards, as appropriate, in the light of developments.

The Commission finalizes food standards and codes, and compiles them into an international reference known as the Codex Alimentarius. To date, the Codex Alimentarius comprises food standards, guidelines and code of practices for a wide variety of food commodities, food labelling, food hygiene, food additive, pesticide residues, contaminant and veterinary drug in foods.

A truly international body, the Commission has 184 member countries including European Community (as of 31 December 2010). These countries are represented at the Commission's plenary sessions by senior government officials, industry representatives, consumer organizations and academic institute representatives.

CODEX AND THE INTERNATIONAL FOOD TRADE

The Codex Alimentarius Commission became a full-fledged player in the international trade arena when it was formally recognized in the World Trade Organization (WTO)s Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) and the Agreement on Technical Barriers to Trade (TBT).

In these two agreements, Codex standards and related texts have been accepted as one of the international reference points for facilitating international trade and resolving trade disputes in international law. They are also used as a benchmark to establish national food regulations.

Consequently, more countries, including those from the developing world, are playing more active roles in the Commission's activities, including participating in the development of Codex standards.

CODEX - THE MALAYSIAN PERSPECTIVE

Our government is very much aware of the need to harmonize food standards with those of Codex. It is the key to promoting and facilitating domestic and international trade of Malaysian products, as well as to protecting the health of Malaysian consumers. Malaysia became a member of Codex since 1971 and has participated actively in most Codex activities. Malaysia was appointed as the Regional Coordinator for Asia for the year 2001 to 2003. In 2007, Malaysia was elected as a host country for Codex Committee on Fats and Oils (CCFO). Our active participation allows us to safeguard our interests and help shape international standards.

The National Codex Committee (NCC) was established in 1985 to formulate a national stand in all matters related to Codex. Members of the committee are drawn from various government ministries and departments, corporations, boards, professional bodies, private sectors, academia, research institutions, consumers and food industry.

Currently, there are a total of 17 National Codex Sub-Committees (NCS), 1 Codex Task Force and 2 Codex Ad Hoc Working Groups that are working closely to study, revise and propose drafts of Codex standards at international level.

The NCC is chaired by the Senior Director Food Safety and Quality, Ministry of Health. NCC secretariat and the Codex Contact Point in Malaysia are with the Food Safety and Quality Division, Ministry of Health Malaysia.

ROLE OF CODEX IN NUTRITION LABELLING & CLAIMS

In the Codex framework, nutrition matters are the responsibility of the Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU), while nutrition labelling falls under the Codex Committee on Food Labelling (CCFL).

The CCFL has elaborated on basic nutrition labelling texts, including the General Standard for the Labelling of Pre-packaged Foods, General Guidelines on Claims, Guidelines on Nutrition Labelling and Guidelines on Use of Nutrition Claims, whereas, the CCNFSDU provide guideline on the nutritional aspect of these guidelines. Apart from that, a lot of work and discussion is going on within the committee of CCFL and CCNFSDU in relation to implementation of Global Strategy of Diet, Physical Activity and Health (DPAH).

REGULATION OF NUTRITION LABELLING & CLAIMS IN MALAYSIA

THE RATIONALE

Local food manufacturers and distributors abide by the Malaysian Food Act 1983 and Food Regulations 1985, which protect the public against health hazards and fraud in the preparation, sale and use of food.

Previously, the Food Regulations does not require mandatory nutrition labelling for food products, except for special purpose foods (eg. infant formula and cereal-based foods) and foods that have been enriched or fortified.

There were also no existing laws for health and nutrition claims, except for one regulation that requires the presence of any vitamin, mineral, essential amino acids or essential fatty acids to be supported by a statement that sets out the quantity of these nutrients.

Despite the fact that nutrition labelling was not previously compulsory for all products, many food manufacturers have taken the initiative to place nutrition labels on their products. Nevertheless, in the absence of specific nutrition labelling guidelines from the authorities, there is no standard format for food labels. As a result, each manufacturer follows their own format of listing nutrients.

Furthermore, when it comes to nutrition claims, the food industry is often not aware of the types and scope of claims that are permitted. Because there are no specific provisions for nutrition claims, many have interpreted the regulation in their own way and adopted their own format.

All this has resulted in confusion among the consumers. Due to the inconsistency of nutrition labels and the wide variety of claims, consumers are unable to fully utilise the information provided when purchasing a food product. Therefore, the food industry is unable to highlight the contents of the product to create a competitive advantage in the market.

To help the industries overcome these problems and to benefit the consumers, the Ministry of Health Malaysia has amended the Food Regulations to make nutrition labelling compulsory for certain foods, as well as regulate health and nutrition claims.

As Malaysia is keen to promote international trade of our food products, the Ministry has ensured that the amendments follow the Codex Alimentarius standards closely. However, some clauses have been adapted so that they are appropriate for local needs.

These amendments were prepared by the Expert Committee on Nutrition, Health Claims and Advertisement set up by the Ministry of Health. The Committee comprises nutritionists, dieticians, medical doctors and food scientists from various agencies and the academia. The proposed amendments were gazetted in 2003 and are now part of the Food Regulations. (Regulation No: 18A-18E; gazette No. P.U.(A) 88, Jil 47 No 7 dated 31 March 2003).

However, this regulation is not static and can be amended from time to time. Application may be made to Ministry of Health Malaysia for amendment of any part of the nutrition labelling and claims regulations.

BENEFITS AND IMPLICATIONS FOR THE FOOD INDUSTRY

With the amendments to the Regulations, the industry will find that implementing proper nutrition labelling and claims brings benefits to their trade activities and increase their competitiveness in the market.

HOW THE REGULATION OF NUTRITION LABELLING AND CLAIMS WILL BENEFIT THE INDUSTRY

- Provide effective communications tool
  Nutrition labelling is the handiest point- of-sale method for food manufacturers to provide information about their product. With the new easy-to-read, standardised format, consumers are able to clearly understand the contents, and assess the quality of each product before making a purchase.

- Enhance product profile
  Through nutrition labels, manufacturers can highlight the nutritional qualities of their products and help consumers differentiate their products from competitors. Furthermore, as consumers become increasingly educated about nutrition and healthy eating, they want reassurance that they are buying products for the right nutritional attributes.

- Provide springboard for sales and marketing promotion campaigns
  When manufacturers know what kind of nutrition claims are permitted, they can make feasible and responsible claims for their products. These claims provide a springboard to amount promotional activities, such as nutrition and health campaigns. Such programmes strike a chord among consumers because they are becoming more concerned with their health and diet.

- Increase international trade opportunities
  More countries are adopting regulations for nutrition labelling of food products. With the introduction of mandatory nutrition labelling for a wide variety of products in Malaysia, these products will have increased trade opportunities and greater acceptability globally.

- Produce more nutritious products
  The Ministry of Health has been mounting a series of health campaigns to educate the public about diet-related chronic diseases, such as obesity, diabetes, heart diseases and certain cancers. As a result, consumers level of health awareness is increasing, just are their demands for nutritious products in the market. Nutrition labelling is a powerful way for the food industry to contribute actively to the promotion of a healthy lifestyle among consumers, while ensuring that their products fit into the lifestyle of the emerging 'breed' of consumers who are well-informed and health-conscious.

In order to comply with these regulations, the food industry is required to take certain actions.

WHAT THE INDUSTRY NEEDS TO DO

- **Determine if product needs nutrition labelling**
  Examine the regulations carefully to determine if nutrition labelling is mandatory for particular products.
- **Revise food label**
  Label design must now accommodate for nutrition information. Manufacturers that have previously placed their own nutrition labels must ensure that they comply with the requirement of nutrition labelling regulation. Nutrition label of imported foods must also comply with these Regulations.
- **Assess nutritional content**
  Accurate nutrient levels have to be analysed or calculated
- **Ensure quality control measures**
  Manufacturers have to ensure that the labels accurately reflect the nutritional composition of the product.

IMPLICATIONS AND BENEFITS FOR THE CONSUMER

Every day, consumers hear more and more about the importance of diet and nutrition in maintaining good health and preventing disease. Their increasing awareness is reflected in the changes to their shopping habits. Consumers now actively choose products for their quality and nutritional value.

Accurate nutrition labels and claims will convey the right nutritional information to consumers and allow them to compare the nutritional value of similar products. This assists them in making wise choices based on nutritional value. This also reinforces the Ministry's nutrition education activities to encourage consumers to practise nutrition principles when selecting foods and planning for mealtimes.

The principle and practical aspects of using nutrition labelling and claims is described in the Key Message 14 of Malaysian Dietary Guideline 2010.

COMPLIANCE AND PENALTIES

As part of the Food Regulation 1985, violation of these regulations will incur a fine of not more than RM 5,000 or imprisonment for not more than 3 years or both.

Food products must also comply with other regulations in the Food Act 1983 & Food Regulations 1985 or risk incurring similar penalties.

APPLYING FOR AMENDMENTS

APPLYING TO AMEND THE NUTRITION LABELLING AND CLAIMS REGULATIONS

Application may be made to the Ministry of Health Malaysia for the amendment of any part of the nutrition labelling and claims regulations. All applications must be made in the forms prescribed by the Ministry of Health, accompanied by all supporting documents. Three types of forms are available for use, namely:

a) Application for Addition to the Permitted Added Nutrient List (Appendix 1).
b) Application for the Nutrition Claims (Appendix 2).
c) Application for Addition to Nutrient Reference Value (NRV) List (Appendix 3).

Application forms can be obtained by contacting the Food Safety and Quality Division or from the Division website: http://fsq.moh.gov.my. All applications will be reviewed by Expert Committee on Nutrition, Health Claims and Advertisement.

NUTRITION LABELLING

WHAT IS NUTRITION LABELLING?

A nutrition label is a listing of the level of nutrient(s) as displayed on the food label. It is meant to provide factual information about the nutritional content of the product.

FOODS REQUIRING MANDATORY NUTRITION LABELLING

The following foods are required to have mandatory nutrition labelling:

1) Foods as listed in Table 1 below. These foods have been selected because they are frequently consumed and in significant amounts, and are important to the community.

2) Foods that have been fortified, enriched, vitaminised, supplemented or strengthened with specific vitamins or minerals (as permitted under Regulations 26 (7)).

3) Foods that make nutrition claims.

4) Special purpose foods: infant formula, follow-up formula, canned food for infants and young children and cereal-based food for infants and young children.

However, if there is a specific labelling requirement for these foods, they must comply with the individual standard.

TABLE 1:

CATEGORIES OF FOODS THAT REQUIRE MANDATORY NUTRITION LABELLING

REG. NO	FOOD CATEGORY	TYPES OF FOOD (as extracted from Food Regulations 1985)
64 - 75	Prepared cereal food and bread	Prepared cereal food (including breakfast cereals), bread (white bread, fruit bread, milk bread, meal bread, rye bread, wheat-germ bread, wholemeal bread, enriched bread)
84 - 87, 89 - 99 & 113	Milk product	Skimmed milk or skim milk or non-fat milk or separated milk, pasteurized milk, sterilized milk, ultra high temperature milk or U.H.T. milk, flavoured milk, full cream milk powder or dried full cream milk, skimmed milk powder or skim milk powder or dried non-fat milk solids or separated milk powder, malted milk powder, recombined milk, reconstituted milk, evaporatedmilk or unsweetened condensed milk, condensed milk sweetened condensed milk, lactose hydrolysed milk, filled milk, filled milk powder, evaporated filled milk/unsweetened condensed filled milk, condensed filled milk/sweetened condensed filled milk, cultured milk/fermented milk
135	Flour confection	Any pastry, cake, biscuit/other product prepared from a mixture of flour/meal and other food
149, 151, 161 & 220	Canned meat, fish and vegetable	Canned meat, canned meat with other food, canned fish, canned vegetable
233 - 242	Canned fruit and various fruit juices	Canned fruit, canned fruit cocktail, fruit juice (apple juice, grapefruit juice, lemon juice, lime juice, orange juice, passion fruit juice pineapple juice)
344 - 345	Salad dressing and mayonnaise	Salad dressing (including tartar sauce), mayonnaise
348 - 358	Soft drink	Syrup, fruit syrup/fruit cordial/fruit squash, flavoured syrup/flavoured cordial, fruit juice drink, fruit drink, flavoured drink, soft drink base/soft drink premix, botanical beverage mix, soya bean milk, soya bean drink

VOLUNTARY NUTRITION LABELLING

Foods that are not required to have mandatory nutrition labelling may also have their nutrient listed. However, they must comply with the format and requirements stipulated in this nutrition labelling and claims regulations.

GUIDELINES FOR LABELLING OF MANDATORY NUTRIENTS

The nutrients that must be declared on a nutrition label are energy, protein, carbohydrate and fat. In addition, total sugars must also be declared for ready-to-drink beverages. For labelling purposes, total sugars here are referred to all monosaccharide and disaccharide contained in a food either naturally occurring or added. In these regulations, ready-to-drink beverages include ready-to-drink soft drink, fruit and vegetable juices, ready-to-drink malted milk and flavoured milk. They do not include alcoholic beverages.

Information on energy value is to be expressed as kcal (kilocalories) per 100 g or per 100 ml of the food or per package if the package contains only a single portion. In addition, the energy value should also be given for each serving of the food as quantified on the label. Besides kcal, energy value may also be expressed as kilojoule (kJ).

The amount of protein, carbohydrate and fat should be expressed as g per 100 g or per 100 ml of the food or per package if the package contains only a single portion. In addition, the amount of these nutrients in the food should also be given for each serving of the food as quantified on the label.

1. Below is the recommended format for the labelling of mandatory nutrients:

a) Example for labelling of solid food

NUTRITION INFORMATION[1]		
Serving size: 50 g **Servings per package: 4**		
	Per 100 g	Per serving (50g)
Energy	230 kcal (966 kJ)[2]	115 kcal (483 kJ)
Carbohydrate	32.0 g	16.0 g
Protein	8.0 g	4.0 g
Fat	8.0 g	4.0 g

1 This is the recommended title for nutrition labels.
2 1 kcal = 4.2 kJ

b) Example for labelling of liquid food

NUTRITION INFORMATION		
Serving size: 200 ml **Servings per package: 5**		
	Per 100 ml	Per serving (200 ml)
Energy	100 kcal (420 kJ)	200 kcal (840 kJ)
Carbohydrate	23.8 g	47.6 g
Total sugars[1]	11.5 g	23.0
Protein	1.1 g	2.2 g
Fat	0 g	0 g

1 Declaration of total sugars is mandatory for ready-to-drink beverages only

c) Example of labelling if the package contains only a single portion

NUTRITION INFORMATION	
Serving size: 60 g **Serving per package: 1**	
	Per package / per serving
Energy	180 kcal
Carbohydrate	25.1 g
Protein	4.8 g
Fat	6.4 g

The use of units and decimal places for each nutrient should follow the examples in the sample format. There is no decimal place for energy and 1 decimal place for carbohydrate, sugars, protein and fat.

If the content of any of the nutrients above is less than 0.05 g, it must be labelled as zero (0) and must still be declared on the label.

2. The energy content of the food is obtained by summing up the energy content of each individual nutrient, calculated using specific factors, as shown in table 2:

TABLE 2:

PROCEDURE FOR CALCULATING THE ENERGY CONTENT OF A FOOD

NUTRIENT	AMOUNT	MULTIPLIED BY	EQUALS TO
Fat	_____ g	9 kcal	= _____kcal
Protein	_____ g	4 kcal	= _____kcal
Carbohydrate	_____ g	4 kcal	= _____kcal
Alcohol (ethanol)	_____ g	7 kcal	= _____kcal
Organic acids	_____ g	3 kcal	= _____kcal
Dietary fibre	_____ g	2 kcal	= _____kcal
Energy content of the food (added up) = _____kcal			

EXAMPLE OF HOW TO CALCULATE ENERGY CONTENT OF A FOOD PRODUCT

Product A comes in a 1 litre package and the recommended number of servings is four (one serving = 250 ml). The package contains 113.2 g carbohydrate, 21.9 g fat, 30.6 g protein and 1.4 g dietary fibre. How many kcal energy does one serving of product A provide?

Energy from carbohydrate	: 113.2 g x 4 kcal	= 453 kcal
Energy from fat	: 21.9 g x 9 kcal	= 197 kcal
Energy from protein	: 30.6 g x 4 kcal	= 122 kcal
Energy from dietary fibre	: 1.4 g x 2 kcal	= 3 kcal
Energy per package	**: 453 + 197 + 122 + 3**	**= 775 kcal**
Energy per 100 ml	: 775 x 100/1000	= 78 kcal or 328 kJ*
Energy per serving	= 78 x 250/100	= 195 kcal or 819 kJ
*1 kcal = 4.2 kJ		

GUIDELINES FOR LABELLING OF OPTIONAL NUTRIENTS

Besides the mandatory nutrients, other nutrients may also be displayed on the nutrition label. These include vitamins and minerals, dietary fibre, sodium, cholesterol, fatty acids, amino acid, nucleotide and other food components. There are however various conditions and requirements for the labelling of these optional nutrients.

1) Vitamins and minerals can only be declared if they meet the following requirements:

- Only vitamins and minerals listed in the Nutrient Reference Value (NRV) (Appendix 4) can be declared on a food label. Other vitamins and minerals must have prior written approval of the Deputy Director General of Health (Public Health), Ministry of Health Malaysia, before they can be declared on the label.

- Vitamins and minerals must be present in significant amounts before they can be declared on the food label. In other words, the vitamin and mineral content must be at least 5% of the NRV per serving.

The labelling format for vitamins and minerals are the same as for the four main nutrients (energy, carbohydrate, protein and fat). They should be expressed in metric units per 100g or per 100ml, or per package if the package contains only a single portion. This information should also be given per serving as quantified on the label.

Vitamins and minerals declared in the food label may also be expressed as a percentage of the NRV per 100g or per 100 ml or per package if the package contains only a single portion and per serving as quantified on the label.

EXAMPLE OF HOW TO CALCULATE ENERGY CONTENT OF A FOOD PRODUCT

	Per 100 g	Per serving (50 g) (a)	NRV	5% NRV per serving (50g) (b)	Can this nutrient be declared?	Rationale
Vitamin A	100 µg	50 µg	800 µg	40 µg	Yes	Is present in significant amounts (a) > (b)
Iron	0.4 mg	0.2 mg	14 mg	0.7 mg	No	Is not present in significant amounts (a) < (b)
Selenium	0.3 µg	0.15 µg	NA	NA	No	Is not listed in the NRV

2. Dietary fibre can be declared on the label, expressed as g per 100 g or per 100 ml, or per package if the package contains only a single portion. In addition, this information should also be given per serving as quantified on the label.

3. Cholesterol and sodium may be declared on the label, expressed in mg per 100 g or per 100 ml, or per package if the package contains only a single portion. In addition, this information should also be given per serving as quantified on the label.

4. Where a claim is made regarding the amount or type of fatty acids, the amounts of all the four main types of fatty acids, namely saturated, monounsaturated, polyunsaturated and trans fatty acids shall be declared in the following form:

Fat ..... g
comprising of
monounsaturated fatty acid ..... g
polyunsaturated fatty acid ..... g
saturated fatty acid ..... g
trans fatty acid ..... g

For example, if a declaration is made of the amount of docosahexaenoic acid (DHA) in a product, the amounts of all the four main types of fatty acids should be declared as indicated above.

This is the recommended format for the labelling of optional nutrients:

NUTRITION INFORMATION[1]		
Serving size: 200 ml **Servings per package: 5**		
	Per 100 ml	Per Serving (200 ml)
Fat[2]	5.8 g	11.6 g
comprising of		
monounsaturated fatty acid	2.1 g	4.2 g
polyunsaturated fatty acid	1.0 g	2.0 g
docosahexaenoic acid (DHA)	0.5 g	1.0 g
saturated fatty acid	2.4 g	4.8 g
trans fatty acid	0.3 g	0.6 g
Cholesterol	49 mg	98 mg
Dietary fibre	1.8 g	3.6 g
Vitamin A	80 µg	160 µg
Vitamin D	1.2 µg	2.4 µg
Vitamin E	0.3 mg	0.6 mg
Vitamin C	3.0 mg	6.0 mg
Thiamin	0.1 mg	0.2 mg
Riboflavin	0.6 mg	1.2 mg
Niacin	1.0 mg	2.0 mg
Vitamin B_6	0.1 mg	0.2 mg
Folic Acid	22 µg	44 µg
Vitamin B_{12}	0.4 µg	0.8 µg
Calcium	270 mg	540 mg
Sodium	20 mg	40 mg
Magnesium	19 mg	38 mg
Iron	1.5 mg	3.0 mg
Zinc	2.3 mg	4.6 mg
Iodine	5 µg	10 µg

1 This is the recommended title for nutrition labels
2 Fat is a mandatory nutrient for nutrition labelling

The use of units and decimal places for each nutrient should follow the examples in the sample format above. International Units (IU) should not be used for vitamins. For conversion of IU to metric units, refer to Appendix 5.

Moisture and ash content of a food may also be declared on a nutrition information panel. If these are declared, one decimal place should be used for these components and the format for declaration should follow that stipulated in these regulations.

GENERAL REQUIREMENTS FOR NUTRITION LABELLING AND CLAIMS

1. All text should be in Bahasa Malaysia, if the food is produced, prepared or packaged in Malaysia. If the food is imported, all text should be in Bahasa Malaysia or English. In either case, translation into other languages may be included.

2. All particulars on nutrition labelling and claims as required by these regulations shall comply with the existing requirements stipulated in Part IV (Regulation 9-18) of the Food Regulations 1985.

3. The minimum font size for nutrition labelling shall be not smaller than 4 point lettering unless otherwise stipulated.

4. Small packages with total surface area of less than 100cm^2 and returnable glass bottles are exempted from nutrition labelling, provided that no nutrition claim is made.

DETERMINING NUTRIENT CONTENT OF FOODS

Food manufacturers can use two methods to analyse the nutrient contents of a food product:

1. Chemical analysis

Preferably, nutrients in foods should be analysed by laboratories accredited by the Department of Standard under the Skim Akreditasi Makmal Malaysia (SAMM). The nutrients should generally be analysed by international recognized methods such as those prescribed by the Association of Official Analytical Chemists (AOAC).

The amount of protein should be calculated using the formula: Protein = Total Kjeldahl Nitrogen x conversion factor for specific food. The conversion factor for specific foods is as given in Appendix 6.

Carbohydrates shall be determined by difference, ie 100 - (g moisture + g ash + g protein + g fat + g dietary fibre)

The amount of energy in the food is calculated using factors as described in Table 2.

2. Calculations based on food composition database

Nutrients in the food may also be calculated based on actual amounts of all ingredients used in the food product, using a food composition database. The Malaysian Food Composition database should be the main database used but may be supplemented by other databases if necessary. The databases used shall be clearly identified. A commercially-available nutrient analysis software may be used to facilitate calculations.

Two examples of calculating nutrients based on a food composition database are given below.

Example 1:
Product A is made from 200 g wheat flour, 100 g margarine, 50 g sugar and 100 g banana. Product A contains 10 servings. What is the nutritional content per 100 g and per serving of the product?

Using the Malaysian Food Composition database[1], the content of the major nutrients in Product A is determined to be as follows:

FOOD ITEM	NUTRITION INFORMATION				
	Weight (g)	Energy (kcal)	Carbohydrate (g)	Protein (g)	Fat (g)
Wheat Flour	200	690	139.2	26.2	3.2
Margarine	100	732	1.6	0.7	80.3
Sugar	50	199	49.7	0	0
Banana	100	76	17.6	1.1	0.2
Total	450	1697	208.1	28.0	83.7

1 Source: Tee ES, Mohd Ismail N, Mohd Nasir A and Khatijah I (1997). Nutrient Composition of Malaysian Foods. 4th. Edition Malaysian Food Composition Database Programme, Institute for Medical Research,Kuala Lumpur

How To Calculate

Amount of nutrients in 100 g of the product:

Energy	= 1697 kcal x 100/450	= 377 kcal or 377 x 4.2 = 1583 kJ
Carbohydrate	= 208.1 g x 100/450	= 46.2 g
Protein	= 28.0 g x 100/450	= 6.2 g
Fat	= 83.7 g x 100/450	= 18.6 g

Amount of nutrients per serving of the product:

Note: Total weight of product = 450 g and contains 10 servings. One serving is therefore 45 g.

Energy	= 377 kcal x 45/100	= 170 kcal or 170 x 4.2 = 714 kJ
Carbohydrate	= 46.2 g x 45/100	= 20.8 g
Protein	= 6.2 g x 45/100	= 2.8 g
Fat	= 18.6 g x 45/100	= 8.4 g

The calculated nutrient contents for Product A can then be placed in the nutrition information panel as given below:

NUTRITION INFORMATION		
Serving size: 45 g **Servings per package: 10**		
	Per 100g	Per Serving (45g)
Energy	377 kcal (1583 kJ)	170 kcal (714 kJ)
Carbohydrate	46.2 g	20.8 g
Protein	6.2 g	2.8 g
Fat	18.6 g	8.4 g

Take note of the appropriate use of units and decimal places for all the nutrients in the example above.

Example 2:
Product B is a cordial made from 420 ml water, 300 g mango and 100 g sugar. If the total volume of cordial B is 500 ml, what is the nutritional content per 100 ml and per serving of the cordial?

Using the Malaysian Food Composition database, the content of the major nutrients in Product B is determined to be as follows:

FOOD ITEM	NUTRITION INFORMATION				
	Weight (g) / Volume (ml)	Energy (kcal)	Carbohydrate (g)	Protein (g)	Fat (g)
Water	420 ml	0	0	0	0
Mango	300 g	134	27.4	4.0	0.9
Sugar	100 g	393	98.7	0	0
Total	500 ml	527	126.1	4.0	0.9

Take note of the appropriate use of units and decimal places for all the nutrients in the example above.

How to calculate

Amount of nutrients in 100 ml of the product:

Energy	= 527 kcal x 100/500	= 105 kcal or 105 x 4.2	= 441 kJ
Carbohydrate	= 126.1 g x 100/500	= 25.2 g	
Protein	= 4.0 g x 100/500	= 0.8 g	
Fat	= 0.9 g x 100/500	= 0.2 g	

Amount of nutrients per serving of the cordial:

Note: Total volume of cordial = 500 ml and contains 10 servings. One serving is therefore 50 ml.

Energy	= 105 kcal x 50/100	= 53 kcal or 53 x 4.2	= 222 kJ
Carbohydrate	= 25.2 g x 50/100	= 12.6 g	
Protein	= 0.8 g x 50/100	= 0.4 g	
Fat	= 0.2 g x 50/100	= 0.1 g	

The calculated nutrient contents for Product B can then be placed in the nutrition information panel as given below:

NUTRITION INFORMATION		
Serving size: 50 ml **Servings per package: 10**		
	Per 100 ml	**Per Serving (50 ml)**
Energy	105 kcal (441 kJ)	53 kcal (22
Carbohydrate	25.2 g	12.6 g
Protein	0.8 g	0.4 g
Fat	0.2 g	0.1 g

Take note of the appropriate use of units and decimal places for all the nutrients in the example above.

NUTRITION CLAIMS

WHAT ARE NUTRITION CLAIMS?

As the phrase suggests, a nutrition claim is any claim made on a label of a food product pertaining to its nutritional quality.

PERMITTED NUTRITION CLAIMS	
Type of claim	**Explanation**
Nutrient content claim	A claim describing the level of a nutrient in a food product
Nutrient comparative claim	A claim that compares the nutrient levels and/or energy value between two or more similar foods
Nutrient function claim and other function claim	Nutrient function claim : A claim that describes the physiological role of nutrient in growth, development and normal functions of the body
	Other function claim : A claim which provides a positive contribution to health or to the improvement of a function or to modifying or preserving health by other food component
Claim for enrichment, fortification or other words of similar meaning	As specified in Regulation 26(7)

NUTRIENT CONTENT CLAIMS AND REQUIRED CONDITIONS

Food manufacturers should understand what types of nutrient content claims are permitted, and the conditions for making these claims.

EXAMPLES OF NUTRIENT CONTENT CONDITIONS

Type of claim	Elaboration	Conditions	Example
"Low in" or "Free of"	A product that claims to be "low in" or "free of" certain nutrients (eg cholesterol) that are supposedly bad for health, when consumed in excessive amounts.	Refer to Table on Conditions for Nutrient Content Claims for "Low in or "Free of" (Appendix 7)	Example 1 **Product:** Butter A **Fat content:** 2.2 g per 100 g **Permitted to claim:** "Low-fat butter" **Rationale:** The fat content (2.2 g per 100 g) meets the criterion for making a claim for "low in" (not more than 3 g per 100 g, for solids) Example 2 **Product:** Flour B **Fat content:** 0.2 g per 100 g **Not permitted to claim:** "This product is free of fat" **Rationale:** The fat content (0.2 g per 100 g) does not meet the criterion for making a claim for "free of" (not more than 0.15 g per 100 g, for solids).
Type of claim	**Elaboration**	**Conditions**	**Example**
"Source of" or "High in"	A product that claims to be a "source of" or "high in" certain nutrients that are supposedly beneficial to health	Refer to Table for Conditions for Nutrient Content Claims for "Source of" or "High in" (Appendix 8)	**Product:** Milk A **Calcium content:** 100 mg per 100 ml **Criterion for claim of "source":** 7.5% of NRV = 7.5/100 x 800 mg = 60 mg **Criterion for claim of "high in":** 2 x value for "source of" = 2 x 60 = 120 mg **Permitted to claim:** "This milk is a source of calcium" because the amount of calcium (100 mg per 100 ml) meets the criterion for making a claim for "source of" (60 mg per 100 ml) **Not permitted to claim:** "This is a high calcium milk" because the calcium content (100 mg per 100 ml) does not meet the criterion for making a claim for "high in" (120 mg per 100 ml).

For making claims on "low in" or "free of", words of similar meaning may also be used, eg for the latter, other words such as "zero" and "no" may also be used.

Similarly, word such as "provides" or words of similar meaning can also be used instead of "source of" and "rich in" or other similar words may be used in place of "high in".

OTHER CONDITIONS FOR MAKING NUTRIENT CONTENT CLAIMS	
Condition	**Example**
When a food is naturally low in, or free of, a nutrient, the term describing the level of the nutrient shall not immediately precede the name of the food but shall be in the form: 'a low _____ (name the nutrient) food' or a (name the nutrient) – free food'	Peanut **CAN** be claimed to be: 'A cholesterol-free food' Peanut **CANNOT** be claimed to be: 'A cholesterol-free peanut' or 'cholesterol-free' **Rationale:** Peanut naturally contains no cholesterol (<0.005 g per 100 g). By claiming to be a cholesterol-free peanut, it gives the wrong perception that other brands of peanut contain cholesterol.

NUTRIENT COMPARATIVE CLAIMS AND REQUIRED CONDITIONS

A nutrient comparative claim is a claim that compares the nutrient levels and/or energy value of two or more foods.

The types of comparative claims and the conditions required for making such claims are given below:

NUTRIENT COMPARATIVE CLAIM		
Type of claim[1]	**Elaboration**	**Conditions**
Reduced, less than, fewer, light Increased, more than extra	A product that has a new formulation with lower or reduced nutrient level A product that has a new formulation with increased or extra nutrient level	• The food being compared should be different versions of the same food or similar food • The foods being compared should be clearly identified • The full details of the comparison should be given (eg units, quantity) • The difference in amounts of the energy or nutrient content should be identified as a percentage, fraction or absolute amount • Energy or nutrient content between compared foods must differ by at least 25%

NUTRIENT COMPARATIVE CLAIM		
Type of claim[1]	**Elaboration**	**Conditions**
		• Micronutrient content between compared foods must differ by at least 10% • The minimum absolute difference in energy value or nutrient content must be equal to or more than the value required for claim as "low in" or "source of" as stipulated in Appendix 7 or 8 respectively

[1]Words of similar meaning may also be used

Any nutrient not listed in Appendix 7 and 8 (conditions required for making nutrient content claims) is not permitted to make a nutrient comparative claim. This is because although a food may meet the requirement of a relative difference for a particular nutrient, there are no conditions for meeting nutrient content claims. Thus, the two main conditions required for making comparative claims cannot be met for such nutrients.

DETERMINING IF A FOOD MEETS THE CONDITIONS FOR MAKING NUTRIENT COMPARATIVE CLAIMS

EXAMPLE 1: COMPARATIVE CLAIM FOR PROTEIN CONTENT	
Conditions • Energy or nutrient content between compared foods must differ by at least 25% • The minimum absolute difference in energy value or nutrient content must be equal to or more than the value required for claim as "source of" as stipulated in Appendix 8 respectively	Protein content of Cheese A (old formulation): 10 g per 100 g Protein content of Cheese B (new formulation): 15 g per 100 g Relative difference in protein content: 15 g – 10 g = 5 g or 5/10 x 100% = 50% Absolute difference in protein content: 15 g – 10 g = 5 g. This is equivalent to 10% of NRV for protein, which is the criterion for claims for "source of" Decision: Cheese B can make a claim such as " Cheese B has 50% more protein than the cheese A" Rationale: The relative difference in protein content between Cheese B and the previous formulation is at least 25% and the absolute difference in protein content between the two formulations (5 g) meets the criterion for claim for "source of" protein (5 g).

EXAMPLE 2: COMPARATIVE CLAIM FOR CALCIUM CONTENT	
Conditions • Micronutrient content between compared foods must differ by at least 10% • The minimum absolute difference in energy value or nutrient content must be equal to or more than the value required for claim "source of" as stipulated in Appendix 8 respectively	Calcium content of Milk A (old formulation): 100 mg per 100 ml Calcium content of Milk B (new formulation): 150 mg per 100 ml Relative difference in calcium content: 150 mg – 100 mg = 50 mg or 50/100 x 100% = 50% Absolute difference in calcium content: 150 mg – 100 mg = 50 mg. This amount is less than 7.5% of NRV (60 mg) which is the criterion required for making a claim for "source of" Decision: Milk B can't make a claim such as "Milk B has 50% more calcium than the previous formulation Rationale: The absolute difference in calcium content between Milk B and Milk A (50 mg) does not meet the criterion for claim for "source of" of calcium (60 mg) although the relative difference in calcium content (50%) meets the criterion of at least 10%.

EXAMPLE 3: COMPARATIVE CLAIM FOR CHOLESTEROL CONTENT	
Conditions • Energy or nutrient content between compared foods must differ by at least 25% • The minimum absolute difference in energy value or nutrient content must be equal to or more than the value required for claim "low in" as stipulated in Appendix 7 respectively	Cholesterol content of Egg A (reference): 0.3 g per 100 g Cholesterol content of Egg B (new product): 0.2 g per 100 g Relative difference in cholesterol content: 0.3 g – 0.2 g = 0.1 g or 0.1/0.3 x 100% = 33% Absolute difference in cholesterol content: 0.3 g – 0.2 g = 0.1 g. This is more than 0.02g which is the criterion required for making claim for "low cholesterol" Decision: Egg B can make a claim such as "Egg B has 33% less cholesterol than the egg A". Rationale: The relative difference in cholesterol content between egg A and egg B is more than 25% and the absolute difference in cholesterol content between the two formulations is more than the amount set for "low cholesterol" claim.

EXAMPLE 4: COMPARATIVE CLAIM FOR SUGAR CONTENT	
Conditions • Energy or nutrient content between compared foods must differ by at least 25% • The minimum absolute difference in energy value or nutrient content must be equal to or more than the value required for claim "low in" as stipulated in Appendix 7 respectively	Sugar content of Jam A (old formulation): 12 g per 100 g Sugar content of Jam B (new formulation): 8 g per 100 g Relative difference in sugar content: 12 g – 8 g = 4 g or 4/12 x 100% = 33% Absolute difference in sugar content: 12 g – 8 g = 4 g. This amount is less than 5 g which is the criterion required for making a claim for "low sugar" Decision: Jam B can't make a claim such as "Jam A has 33% less sugar than the jam A" Rationale: Although the relative difference in calcium content between Jam A and Jam B is more than 25%, the absolute different is less than 5g which does not meet the criterion for claim for "low sugar"

NUTRIENT FUNCTION CLAIMS OR OTHER FUNCTION CLAIMS AND REQUIRED CONDITIONS

A nutrient function claim or other function claim is a nutrition claim that describes the physiological role of the nutrient or other food component in growth, development and normal functions of the body. These claims should not imply that the nutrient cures, treats or protects from diseases.

The permitted function claims are as listed below:

- As a predominant macular pigment in the retina, lutein is able to filter blue light and may protect the eye*
- Beta glucan from (state the source) helps lower or reduce cholesterol*
- Bifidobacterium lactis:-
  i) Bifidobacterium lactis helps improve a beneficial intestinal microflora*
  ii) Bifidobacterium lactis may help to reduce the incidence of diarrhea*
- Calcium aids in the development of strong bones and teeth
- DHA and ARA may contribute to the visual development of infant*
- Folic acid:-
  i) Folic acid is essential for growth and division of cells
  ii) Folate plays a role in a formation of red blood cells
  iii) Folate helps to maintain the growth and developmental of the foetus
- High Amylose Maize Resistant Starch (HAMRS) helps improve / promote colonic / bowel / intestinal function / environment*

- Iron:-
  i) Iron is a factor in red blood cell formation
  ii) Iron is a component of haemoglobin in red blood cell which carry oxygen to all parts of the body

- Inulin and oligofructose (fructo-oligosaccharide):-
  i) Inulin helps increase intestinal bifidobacteria and helps maintain a good intestinal environment*
  ii) Oligofructose (fructo-oligosaccharide) helps increase intestinal bifidobacteria and helps maintain a good intestinal environment*
  iii) Inulin is bifidogenic*
  iv) Oligofructose (fructo-oligosaccharide) is bifidogenic*
  v) Inulin is prebiotic*
  vi) Oligofructose (fructo-oligosaccharide) is prebiotic*

- Iodine is essential for the formation of thyroid hormone

- Isomaltulose:
  i) Isomaltulose is slowly hydrolysed to glucose and fructose and therefore it provides longer lasting energy compared to sucrose*
  ii) Isomaltulose is a slowly release source of energy compared to sucrose*
  iii) Isomaltulose provides longer lasting energy compared to sucrose*
  iv) Isomaltulose is a slowly hydrolysed to glucose and fructose compared with sucrose*

- Magnesium promotes calcium absorption and retention

- Niacin is needed for the release of energy from protein, fats and carbohydrate

- Oat soluble fibre (beta- glucan) helps to lower the rise of blood glucose provided it is not consume together with other food*

- Oligosaccharide mixture containing 90%(wt/wt) GOS and 10% (wt/wt) lcFOS:-
  i) Oligosaccharide mixture containing 90%(wt/wt) GOS and 10% (wt/wt) lcFOS is prebiotic*
  ii) Oligosaccharide mixture containing 90%(wt/wt) GOS and 10% (wt/wt) lcFOS is bifidogenic*
  iii) Oligosaccharide mixture containing 90%(wt/wt) GOS and 10% (wt/wt) lcFOS helps increase intestinal bifidobacteria and helps maintain a good intestinal environment*
  iv) Oligosaccharide mixture containing 90%(wt/wt) GOS and 10% (wt/wt) lcFOS helps to improve the gut/ intestinal immune system of babies / infant*

- Oligofructose-inulin mixture containing 36-42% oligofructose (DP 2-10) and 50-56 % inulin (DP >10) helps to increase calcium absorption and increase bone mineral density when taken with calcium rich food*

- Patented Cooking Oil Blend helps to increase HDL Cholesterol and improve HDL/LDL Cholesterol Ratio*

- Plant sterol / plant stanol / plant sterol ester help lower or reduce cholesterol*

- Polydextrose:-
  i) Polydextrose is bifidogenic*
  ii) Polydextrose helps increase intestinal bifidobacteria and helps maintain a good intestinal microflora*

- Protein:-
  i) Protein helps build and repair body tissues
  ii) Protein is essential for growth and development
  iii) Protein provides amino acids necessary for protein synthesis

- Resistant dextrin / Resistant maltodextrin is a soluble dietary fibre that helps to regulate / promote regular bowel movement especially of people with a tendency to constipation*

- Sialic acid is an important component of brain tissues*

- Soy protein helps to reduce cholesterol*

- Vitamin A:-
  i) Vitamin A aids is maintaining the health of skin and mucous membrane
  ii) Vitamin A is essential for the functioning of the eyes

- Vitamin B_1 / Thiamine is needed for the release of energy from carbohydrate

- Vitamin B_2 / Riboflavin is needed for the release of energy from protein, fats and carbohydrate

- Vitamin B_{12} / Cyanocobalamine is needed for red blood cell production.

- Vitamin C:-
  i) Vitamin C enhances absorption of iron from non-meat source
  ii) Vitamin C contributes to the absorption of iron from food

- Vitamin D:-
  i) Vitamin D helps the body utilize calcium and phosphorus
  ii) Vitamin D is necessary for the absorption and utilization of calcium, and phosphorus

- "Vitamin E protects the fat in body tissues from oxidation"

- "Zinc is essential for growth"

Note :
* refer to Appendix 9 for "source" level and others conditions required for making these claims.

For all the above claims, words/ sentences of similar meaning can also be used.
The above function claims will be reviewed from time to time based on new relevant scientific evidence and applications.

A nutrient function claim can only be made provided the food meets the criterion for claims for "source of". Examples of determining if a food fulfils the conditions for making function claims are given below:

Example 1
Product: Juice A
Vitamin C content: 10.0 mg per 100 ml
Does Juice A meet the criterion for claim for "source of" vitamin C ? Yes
Decision: Juice A can make a function claim for vitamin C such as "Vitamin C enhances absorption of iron from non-meat sources"
Rationale: The vitamin C content (10.0 mg) meets the level required for making a claim for "source" which is 7.5% of the NRV per 100 ml (4.5 mg); therefore, it can make a relevant nutrient function claim.

Example 2
Product: Juice B
Vitamin C content: 2.2 mg per 100 ml
Does Juice B meet the criterion for claim for "source of" vitamin C? No
Decision: Juice B can't make a function claim for vitamin C
Rationale: The vitamin C content (2.2 mg) does not meet the criterion for making a claim for "source of" which is 7.5% of the NRV per 100 ml (4.5 mg) ; therefore, it cannot make a relevant nutrient function claim.

Example 3
Product: Cheese C
Calcium content: 120 mg per 100 g
Does Cheese C meet the criterion for claim for "source of" calcium? Yes
Decision: Cheese C can make a function claim for calcium such as "Calcium aids in the development of strong bones and teeth"
Rationale: The calcium content (120 mg) meets the level required for making a claim for "source of" which is 15% of the NRV per 100 g (120 mg). Therefore, it can make a relevant nutrient function claim.

Example 4
Product: Biscuit D
Beta glucan content: 1.0g per serving
Source of beta glucan: Oat
Dietary fibre content: 4.5 g per 100g
Does biscuit D meet the criterion for minimum amount and other conditions required for making claim for beta glucan? Yes
Decision: Biscuit D can make a function claim such as "Beta glucan from (state the source) helps lower or reduce cholesterol", provided it must have a statement on the label which is "Amount recommended for cholesterol lowering effect is 3g /day"
Rationale: The beta glucan content (1.0 g per serving) meets the minimum level required which is 0.75g per serving and also meets the other requirement needed for making the claim.

NUTRIENT ENRICHMENT OR FORTIFICATION CLAIMS

Foods may claim to be fortified, enriched, vitaminised, supplemented or strengthened with specific vitamins or minerals if the food meets the conditions which are specified in Table II of the Twelfth Schedule.

Foods that claim to be enriched, fortified or words of similar meaning, with specific vitamins or minerals must declare the amounts of these nutrients on the label and must comply with the format and all other requirements in these regulations on nutrition labelling and claims.

Example:
Product: Bread A
Vitamin B_2 content: 0.5g per 100g
Does bread A meet the minimum amount required for making enrichment claim? Yes
Permitted to make function claim: "This bread is enriched with Vitamin B_2 "
Rationale: According to the Table II of Twelfth Schedule, vitamin B_2 content (0.5g per 100g) meets the minimum required for making a claim for enrichment which is 0.33 g per 100 g

NUTRITIOUS CLAIM

A food may claim as "nutritious", provided it complies with these following conditions:

- The food contains a range of nutrients including carbohydrate, fat, protein, vitamin and mineral
- The food contains a substantial amount of energy of more than 40 kcal per 100g or 20 kcal per 100 ml
- The food contains source of protein not less than 5g per 100g or 2.5 g per 100 ml
- The food contains at least four vitamins of an amount that meets the criteria for claim as source and two minerals (excluding sodium) of an amount that meets the criteria for claim as source
- The amount of the nutrients mentioned in second and forth bullet is declared

PROHIBITED CLAIMS

The regulations contain a few claims which are not allowed:

- Claims stating that any particular food will provide an adequate source of all essential nutrients
- Claims implying that a balanced diet or a combination of a variety of foods cannot supply adequate amounts of all nutrients
- Claims that cannot be substantiated
- Claims suggesting that a food can prevent, alleviate, treat or cure a disease, disorder or other physiological function
- Claims that cause consumer to doubt the safety of similar food
- Claims that arouse or exploit fear in consumer
- Disease risk reduction claim

FUNCTION CLAIM VS DISEASE RISK REDUCTION CLAIM	
Function claim	**Disease risk reduction claim**
• Describes the specific role of the nutrient in relation to physiological functions: √ "Iron is a factor in red blood cell formation" √ "Calcium aids in the development	• Suggest that a food can prevent, alleviate, treat or cure a disease, disorder or other physiological function. X "Iron can help reduce the risk of anaemia" X "Food A contains calcium that can prevent osteoporosis" X "Soy protein can reduce risk to heart disease".

CRITERIA FOR COMPLIANCE OF ANALYTICAL LEVELS

The criteria for compliance of analytical levels for various nutrients according to the regulation for nutrition labelling or claims are given in the Appendix 10

APPENDIX 1:

APPLICATION FOR ADDITION TO PERMITTED ADDED NUTRIENT LIST

APPLICATION FOR ADDITION TO PERMITTED ADDED NUTRIENT LIST [TABLE (I) OF TWELFTH SCHEDULE]

Guide for application:

i. All sections in this form must be completed.
ii. Where relevant, provide summaries of information required so as to assist the Committee members in understanding the application.
iii. Submit copies of all references cited in the text as appendices.
iv. All information requested in this format must be submitted in Bahasa Malaysia or English.
v. Twenty copies of this format must be submitted together with the necessary supporting document.

Application should be addressed to:

Senior Director
Food Safety and Quality Division
Ministry of Health Malaysia
Level 3, Block E7, Parcel E
Federal Government Administration Centre
62590 PUTRAJAYA

1. Name of applicant (in full and in block letters) *:
2. Business address:
3. Mailing address:
4. E-mail address:
5. Telephone number: Fax Number:

6. Type of business:
   * State:

a. Whether applicant is manufacturer or its agent.
b. Whether this application is on behalf of a single firm or organization.
c. Whether this application is on behalf of a food processing industry or other firms or organizations.
d. If on behalf of the food processing or other industries or organizations, names and addresses of these.

7. Name the nutrient(s) to be added to Table (I) of Twelfth Schedule.

8. State the limits of the probable daily intake of the nutrient(s) in the diet.

9. State the chemical structure and formula of the nutrient(s) and describe it in precise chemical terms and state all physical properties.

10. Provide information on the purity of the nutrient from a recognized authority.

11. Summarize the method of manufacture of the nutrient.

12. Provide detailed information on the physiological role(s) of this nutrient.

13. Name the food(s) to which this nutrient is to be added.

14. State the beneficial effect of adding the nutrient to the food and provide sound scientific evidence on the benefit.

15. Show information regarding the stability and bioavailability of the nutrient(s) in the food(s) in which it is to be added.

16. State the analytical method to determine the amount of the nutrient(s) in the raw, processed and/or finished food.

17. Submit all data on safety evaluation derived from both chronic and acute studies conducted on the nutrient(s).

18. Give example of approval by other countries or recognized international agencies of this application.

19. Provide other relevant information.

Declaration:
I _____ (full name), identity card / passport number _____ , hereby declare:

a. that this application is made by myself / on behalf of _____

b. that all particulars given in this form including all appendices attached are true and correct.

Signature:
Name (capital letter):
Designation:
Official stamp:
Date:

APPENDIX 2:

APPLICATION FOR NUTRITION CLAIMS

APPLICATION FOR NUTRITION CLAIMS (REG 18C, 18D, 18E)

Guide for application:

i. All sections in this form must be completed.
ii. Where relevant, provide summaries of information required so as to assist the Committee members in understanding the application.
iii. Submit copies of all references cited in the text as appendices.
iv. If the nutrient concerned is already in the NRV list, information for item numbers 9, 10, 11, 15, 16 and 17 need not be provided.
v. All information requested in this format must be submitted in Bahasa Malaysia or English.
vi. Twenty copies of this format must be submitted together with the necessary supporting document.

Application should be addressed to:
Senior Director
Food Safety and Quality Division
Ministry of Health Malaysia
Level 3, Block E7, Parcel E
Federal Government Administration Centre
62590 PUTRAJAYA

1. Name of applicant (in full and in block letters) *:
2. Business address:
3. Mailing address:
4. E-mail address:
5. Telephone number: Fax Number:

6. Type of business:
   * State:

a. Whether applicant is manufacturer or its agent.
b. Whether this application is on behalf of a single firm or organization.
c. Whether this application is on behalf of a food processing industry or other firms or organizations.
d. If on behalf of the food processing or other industries or organizations, names and addresses of these.

7. State the nutrient concerned and the proposed nutrition claim (nutrient content claim, comparative claim or nutrient function claim). If the said nutrient is to be added to food and it is not listed in Table (I) of Twelfth Schedule as a permitted nutrient supplement, a submission for its inclusion to the list has to be made to Ministry of Health Malaysia using the format entitled Application for Addition to Nutrient Supplement List [Table (I) of Twelfth Schedule].

8. Name the food(s) to which this nutrient is to be added.

9. State the limits of the probable daily intake of the nutrient in the diet.

10. State the chemical structure and formula of the nutrient(s) and describe it in precise chemical terms and state all physical properties.

11. Provide detailed information on the physiological role(s) of this nutrient.

12. If proposing a "nutrient content claim" or "comparative claim", state the proposed criteria for making these claims and provide scientific justification.

13. If proposing a new "nutrient function claim" and the level of that nutrient to be considered as a "source" of that nutrient per 100 g or per 100 ml of the food, if it is not already in Table (II) in the Fifth A Schedule. Provide scientific justification for the proposed level.

14. If proposing a new "nutrient function claim", provide sound scientific evidences for the claim. All available literature including both positive and negative findings on the proposed claim must be provided. If the list is too extensive, provide hard copies only for more recent studies. Other studies can be provided in a bibliographic listing. Data from human intervention trials are preferred. Epidemiological and experimental studies and reviewed papers may be included as supportive evidences. Studies should include those conducted by other organizations or institutions. Result of all thesestudies should be published in refereed journals.

15.Show information regarding the stability and bioavailability of the nutrient(s) in the food(s) in which it is to be added.

16.State the analytical method to determine the amount of the nutrient(s) in the raw, processed and/or finished food

17.Submit all data on safety evaluation derived from both chronic and acute studies conducted on the nutrient(s).

18.Give examples of approval by other countries or recognized international agencies of this application.

19.Provide other relevant information.

Declaration:
I _____ (full name), identity card / passport number _____, hereby declare:
a. that this application is made by myself / on behalf of _____
b. that all particulars given in this form including all appendices attached are true and correct.

Signature:

Name (capital letter):

Designation:

Official stamp:

Date:

APPENDIX 3:

APPLICATION FOR ADDITION TO NUTRIENT REFERENCE VALUE (NRV) LIST

APPLICATION FOR ADDITION TO NUTRIENT REFERENCE VALUE (NRV) LIST [REGULATION 18B(11)]

Guide for application:

- All sections in this form must be completed.
- Where relevant, provide summaries of information required so as to assist the Committee members in understanding the application.
- Submit copies of all references cited in the text as appendices.
- All information requested in this format must be submitted in Bahasa Malaysia or English.
- Twenty copies of this format must be submitted together with the necessary supporting document.

Application should be addressed to:

Senior Director
Food Safety and Quality Division
Ministry of Health Malaysia
Level 3, Block E7, Parcel E
Federal Government Administration Centre
62590 PUTRAJAYA

1. Name of applicant (in full and in block letters) *:
2. Business address:
3. Mailing address:
4. E-mail address:
5. Telephone number: Fax Number:
6. Type of business:

* State:
a. Whether applicant is manufacturer or its agent.
b. Whether this application is on behalf of a single firm or organization.
c. Whether this application is on behalf of a food processing industry or other firms or organizations.
d. If on behalf of the food processing or other industries or organizations, names and addresses of these.

7. Name the nutrient(s) to be added to the NRV list.

8. State the limits of the probable daily intake of the nutrient(s) in the diet.

9. State the chemical structure and formula of the nutrient(s) and describe it in precise chemical terms

10. Provide detailed information on the physiological role(s) of this nutrient(s).

11. State the proposed level for the NRV list and provide scientific justification for the recommended level.

12. Submit all data on safety evaluation derived from both chronic and acute studies conducted on the nutrient(s).

13. Provide other relevant information.

Declaration:
I _____ (full name), identity card / passport number _____ , hereby declare:
a. that this application is made by myself / on behalf of _____
b. that all particulars given in this form including all appendices attached are true and correct.

Signature:

Name (capital letter):

Designation:

Official stamp:

Date:

APPENDIX 4:

LIST OF NUTRIENT REFERENCE VALUE (NRV)

NUTRIENT	UNIT	UNIT
Vitamin A	µg	800
Vitamin D	µg	5
Vitamin E	mg	10
Vitamin C	mg	60
Thiamin	mg	1.4
Riboflavin	mg	1.6
Niacin	mg	18
Vitamin B_6	mg	2
Folic acid	µg	200
Vitamin B_{12}	µg	1
Calcium	mg	800
Magnesium	mg	300
Iron	mg	14
Zinc	mg	15
Iodine	µg	150
Protein	g	50

The NRV list has been adapted from the Codex Alimentarius and will be reviewed from time to time based on new relevant scientific evidence and applications from the food industry.

APPENDIX 5:

CALCULATION AIDS

When You Know	Multiply By	To Obtain
Kilocalories (kcal)	4.2	kilojoule (kJ)
Beta-carotene (µg)	1/6	Vitamin A alcohol (retinol) (µg) Vitamin A alcohol (retinol) (µg)
Vitamin A (IU)	0.3	
Vitamin D (IU)	0.025	Vitamin D2 /D3 (µg)
Vitamin E (IU)	1	Vitamin E (dl-alpha-tocopheryl acetate) (mg)

APPENDIX 6:

CONVERSION FACTORS FOR NITROGEN TO PROTEIN

FOOD	CONVERSION FACTOR
Cereals	
Wheat, hard, medium or soft	
Wholemeal or flour or bulgur	5.83
Flour, medium or low extraction	5.70
Macaroni, spaghetti, wheat pastes	5.70
Bran	6.31
Rice	5.95
Rye, barley, oats	5.83
Pulses, nuts and seeds	
Groundnuts	5.46
Soya bean, seeds, flour or products	6.25
Treenuts	
Almond	5.18
Brazil nut	5.71
Coconuts, chestnuts, treenuts	5.30
Seeds	
Sesame, safflower, sunflower	5.30
Milk and milk products	6.38
Edible fats and edible oil	
Margarine, butter	6.38
Other food	6.25

Source:
WHO (1973). Report of a Joint FAO/WHO Ad Hoc Expert Committee on Energy and Protein Requirements, WHO Technical Report Series No. 522. WHO, Geneva

APPENDIX 7:

CONDITIONS FOR NUTRIENT CONTENT CLAIMS "LOW IN" OR "FREE OF"

COMPONENT	CLAIM	NOT MORE THAN
Energy	Low	40 kcal (170 kJ) per 100 g (solid) or 20 kcal (80kJ) per 100 ml (liquids)
	Free	4 kcal per 100 g (or 100 ml)
Fat	Low	3 g per 100 g (solid) or 1.5 per 100 ml (liquids)
	Free	0.15 g per 100 g (or 100 ml)
Saturated fat	Low	1.5 g per 100 g (solid) or 0.75 g per 100 ml (liquids) and 10% of total energy of the food
	Free	0.1 g per 100 g (solids) or 0.1 g per 100 ml (liquids)
Cholesterol	Low	0.02 g per 100 g (solids) or 0.01 g per 100 ml (liquids)
	Free	0.005 g per 100 g (solids) or 0.005 g per 100 ml (liquids)
Trans fatty acids	Low	1.5 g per 100 g (solids) or 0.75 g per 100 ml (liquids) and 10% of total energy of the food
	Free	0.1 g per 100 g (solids) or 0.1 g per 100 ml (liquids)
Sugars*	Low	5 g per 100 g (solid) or 2.5g per 100 ml (liquid)
	Free	0.5 g per 100 g (solid) or 0.5 g per 100 ml (liquid)
Sodium	Low	0.12 g per 100 g(solid) or 0.06 g per 100 ml (liquid)
	Very low	0.04 g per 100 g(solid) or 0.02 g per 100 ml (liquid)
	Free	0.005 g per 100 g(solid) or 0.005 g per 100 ml (liquid)

* Refer to all monosaccharides and disaccharides

APPENDIX 8:

CONDITIONS FOR NUTRIENT CONTENT CLAIMS "SOURCE OF" OR "HIGH IN"

COMPONENT	CLAIM	NOT LESS THAN
Protein	Source	10% of NRV per 100 g (solids) or 5% of NRV per 100 ml (liquids) or 5% of NRV per 100 kcal
	High	(at least 2 times the value for "source of ")
Vitamins and minerals	Source	15% of NRV per 100 g (solids) or 7.5% of NRV per 100 ml (liquids) or 5% of NRV per 100 kcal
	High	(at least 2 times the values for "source of")
Dietary fibre	Source	3 g per 100 g (solid) or 1.5 g per 100 ml (liquid)
	High	6 g per 100 g (solid) or 3 g per 100 ml (liquid)

APPENDIX 9:

OTHER CONDITIONS FOR NUTRIENT FUNCTION CLAIMS

COMPONENT	MINIMUM AMOUNT REQUIRED	OTHER CONDITIONS
Beta-glucan	0.75g per serving.	i. Source of beta glucan shall be from oat and barley. ii. The food to be added with beta-glucan shall also contain total dietary fibre for not less than amount required to claim as "source": 3 g per 100 g (solids) 1.5 g per 100 ml (liquids) iii. There shall be written on the label these following statement "Amount recommended for cholesterol lowering effect is 3g/day"
Bifidobacterium lactis	1 x 10^6 minimum viable cells per g	Claim only permitted in infant formula, follow-up formula, formulated milk powder for children and cereal based food for infant and children
DHA and ARA	A combination of 17mg per 100 kcal DHA and 34 mg per 100 kcal of ARA	Claim only permitted in infant formula product
High amylose maize resistant starch	2.5 g per serving	
Inulin	1.25 g per serving	This minimum level is for food other than infant formula
	0.4 g per 100ml on a ready to drink basis	i. This minimum level is specified for infant formula only ii. The component (inulin and oligofructose / fructo-oligosaccharide (FOS)) shall not exceed 0.6 g per 100 ml
Isomaltulose	15g per serving	The addition and claims for isomaltulose is not permitted in infant formula product.
Lutein	2.5 µg per 100ml (3.7 mg per 100kcal)	This minimum level is specified for infant formula only.
	20 µg per 100ml (30 mg per 100kcal)	This minimum level is specified for follow up formula only.
	20 µg per 100ml (20 mg per 100kcal)	This minimum level is specified for formulated milk powder for children only.
Oat soluble fibre (beta-glucan)* **in relation to blood glucose claim*	6.5 g per 100g	i. Claim for oat soluble fibre (beta-glucan) only permitted in cereal and cereal based product ii. Claim only permitted for cereal and cereal based product where the macronutrient profile (carbohydrate, protein and fat) complies with Recommended Nutrient Intake (RNI) Malaysia iii. There shall be written on the label of cereal and cereal based product making such claim a statement "For advice regarding consuming this product, consult your medical professional"
Oligofructose / fructo-oligosaccharide (FOS)	1.25 g per serving	This minimum level is for food other than infant formula
	0.4 g per 100ml on a ready to drink basis	i. This minimum level is specified for infant formula only ii. The component (inulin and oligofructose /

COMPONENT	MINIMUM AMOUNT REQUIRED	OTHER CONDITIONS
		fructo-oligosaccharide (FOS)) shall not exceed 0.6 g per 100 ml
Oligofructose-inulin mixture containing 36-42% oligofructose (DP 2-10) and 50-56 % inulin (DP >10)	2 g per serving	Total fructant content in the mixture shall be more than 90% on dry weight basis"
Oligosaccharide mixture containing 90% (wt/wt) galacto-oligosaccharide (GOS) and 10%(wt/wt) long chain fructo-oligosaccharide (lcFOS)* **in relation to intestinal immune claim*	0.8 g per 100 ml	i. Claim only permitted in infant formula and follow up formula. ii. The component (oligosaccharide mixture) shall not exceed 0.8 g per 100 ml
Oligosaccharide mixture containing 90% (wt/wt) galacto-oligosaccharide (GOS) and 10% (wt/wt) long chain fructo-oligosaccharide (lcFOS)* **in relation to prebiotic, bifidogenic and intestinal bifidobacteria claim*	0.4 g per 100ml	i. Claim only permitted in infant formula, follow up formula and formulated milk powder for children ii. The component (oligosaccharide mixture) shall not exceed 0.8 g per100 ml
Patented cooking oil blend	Ratio of fatty acid profiles for saturated fatty acid:monounsaturated fatty acid:polyunsaturated fatty acid must be 1:1:1	The patented cooking oil blend refers to US Patent number 5578334 and 5843497
Plant sterol / plant stanol / plant sterol ester	0.4g per serving in a "free basis" form	i. Types of plant sterol or plant stanol permitted: "plant sterol/plant stanol, phytosterols/ phytostanol, sitosterol, campesterol, stigmasterol or other related plant stanol" ii. Types of plant sterol esters permitted: "campesterol ester, stigmasterol ester and beta-sitosterol ester"; iii. Amount of plant sterol / plant stanol/ plant sterol ester in a "free basis" form to be added in food shall not exceed 3 g plant sterol/plant stanol per day iv. Declaration of the total amount of plant sterol / plant stanol / plant sterol ester contained in the products shall be expressed in metric units per 100 g or per 100 ml or per package if the package contains only a single portion and per serving as quantified on the label v. Only the terms "plant sterol" or "plant stanol" or "plant sterol ester" shall be used in declaring the presence of such components vi. There shall be written on the label of food making such claim the following statements: a) "Not recommended for pregnant and lactating women, and children under the age of five years";

COMPONENT	MINIMUM AMOUNT REQUIRED	OTHER CONDITIONS
		b) "Persons on cholesterol-lowering medication shall seek medical advice before consuming this product"; c) That the product is consumed as part of a balanced and varied diet and shall include regular consumption of fruits and vegetables to help maintain the carotenoid level; and d) "With added plant sterols / plant stanol /plant sterol ester" in not less than 10 point lettering".
Polydextrose	1.25 g per serving	
Resistant dextrin / Resistant maltodextrin	2.5 g per serving	Addition and claim for resistant dextrin / resistant maltodextrin are not permitted in infant formula
Sialic acid	36 mg per 100 kcal/ 24 g per 100 ml	i. The component (sialic acid) shall not exceed 67 mg per 100 kcal (45 mg per 100 ml) ii. Addition and claim only permitted in infant formula and follow up formula iii. Only natural sialic acid from milk shall be added
Soy protein	5 g per serving	There shall be written on the label of food making such claim a statement: "Amount recommended to give the lowering effect on the blood cholesterol is 25 g per day"

APPENDIX 10:

CRITERIA FOR COMPLIANCE OF ANALYTICAL LEVEL ACCORDING TO REGULATION

REG	TYPE OF CLAIM	CRITERIA FOR COMPLIANCE
26(7)	Claim for: • Enrichment • Fortified • Vitaminised • Supplemented • Strengthened	≥100%* of the declared nutrient value on the label
18C Fifth A Schedule, Table I	Nutrient content claim for • Energy • Fat • Saturated fat • Cholesterol • Trans fatty acid • Sugars • Sodium	<120%* of the declared nutrient value on the label
18C Fifth A Schedule, Table II	Nutrient Content Claim for: • Protein • Vitamins • Minerals	≥80%* of the declared nutrient value on the label
18B	Declaration on Nutrition Information Panel for: • Energy • Protein • Fat • Carbohydrate	≥80%* of the declared nutrient value on the label
18B	Declaration on Nutrition Information Panel for: • Vitamins • Minerals • Fibre	≥50%* of the declared nutrient value on the label
Other regulations	Nutrients for which the minimum level is specified in the regulation	100% of the minimum amount specified in the regulation

*The ratio between the nutrient level derived by the analytical and the declared level multiplied by 100 {(laboratory value / label value) x 100}

MALAYSIAN DIETARY GUIDELINE
KEY MESSAGE 14
MAKE EFFECTIVE USE OF NUTRITION INFORMATION ON FOOD LABELS

KEY RECOMMENDATIONS 1
Use Nutrition Information Panel (NIP) to guide in making food choices

HOW TO ACHIEVE
- Obtain information on the amount of energy and other nutrients in the product that is being considered to be purchased
- Consider how the energy and nutrients contained in this food contribute to the total nutrient intake of the day
- Compare the content of all the nutrients on the label of the different brands available for the same food item, not merely the level of one nutrient

KEY RECOMMENDATIONS 2
Make use of nutrition claims wisely

HOW TO ACHIEVE
- Use nutrient content claims and comparative claims appropriately
- Use these claims together with the NIP in guiding food choices
- Make use of nutrient function claims together with other nutrition information various sources in making food choices
- Note that nutrient function claims do not imply that the nutrient cures, treats or protects a person from diseases

KEY RECOMMENDATIONS 3
Educate children on the use of NIP

HOW TO ACHIEVE
- Educate children who tag along when shopping in supermarkets
- Show them the nutrition information on the label and the significance of the nutrients and the values declared
- Familiarise children with nutrition information even in their early years and let nutrition principles guide them in making healthier food choices throughout life

Source: Malaysian Dietary Guideline.
National Coordinating Committee on Food and Nutrition, Ministry of Health Malaysia, 2010

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