## (Unofficial)

# Notification of the Ministry of Public Health

(No. 350) B.E. 2556 (2013)

Re: Cow's Milk.

\_\_\_\_\_

It deems appropriate to amend the notification of the Ministry of Public Health, Re: Cow's milk.

By the virtue of provisions of Section 5 in the first phrase, and 6 (2)(3) (4) (5) (6) (7) (9) and (10) of the Food Act B.E.2522 (1979), in which contain provisions in relation to the restriction of Rights and Liberties of the Persons, in respect of which Section 29 and in conjunction with Section 33, Section 41, Section 43 and Section 45 of the Constitution of the Kingdom of Thailand so permit by virtue of provisions of law; the Minister of Public Health hereby issues the notification as follows:

Clause 1. The following notifications shall be repealed:

- 1. The notification of the Ministry of Public Health (No. 265) B.E. 2545 (2002), Re: Cow's Milk., dated 19th December B.E. 2545 (2002).
- 2. The notification of the Ministry of Public Health (No.282) B.E. 2547 (2004), Re: Cow's Milk., dated 30th August B.E. 2547 (2004).
  - Clause 2. Cow's milk is prescribed food to have qualities or standards

Clause 3. In this notification

"Cow's Milk" mean product produce form raw milk as follows: Fresh Plain Fluid cow's milk, Plain Fluid cow's milk, Milk powder, Condensed milk, Recombined milk and Filled milk

"raw milk" means milk drawn from the cow.

"Fresh Plain Fluid cow's milk" mean products which are made from raw milk and being pasteurized not above 80°C; milk fat content not less than 3.2% by weight; raw milk is not in separation or added by any substances, except for adjustment of milk fat by separation.

"Plain Fluid cow's milk" mean products which are made from raw milk and being pass through various processes other than Fresh Plain Fluid cow's milk; and raw milk is not in separation or added by any substances except for adjustment of milk fat by separation and addition or adjusted Total Solid non fat not exceed 1 percentage of weight.

Milk powder means cow's milk which is passed through heat treatment and evaporated by various processes until becoming powder and other substances may be added as ingredients.

Condensed milk means cow's milk from which the water has been partially evaporated and sugar or other substances may be added as ingredients

Recombined milk means products obtained from recombining the separated composition of cow's milk so as to obtain the inherent to that characteristics of cow's milk as stipulated in Fresh Plain Fluid cow's milk, Plain Fluid cow's milk or Condensed milk and cow's milk or other composition of milk may be added as ingredients

Filled milk means cow's milk as stipulated in Fresh Plain Fluid cow's milk, Plain Fluid cow's milk, Milk powder or Condensed milk from which the milk fat has been partially or totally replaced with other kind of fat

Clause 4. Cow's milk. There are 5 kinds of milk as follows:

- (1) Fresh Plain Fluid cow's milk
- (2) Plain Fluid cow's milk. There are 3 kinds can be classified as follows:
  - (2.1) Plain Fluid cow's milk form raw whole milk
  - (2.2) Plain Fluid cow's milk form raw Partly skimmed milk
  - (2.3) Plain Fluid cow's milk from raw Skimmed milk
- (3) Milk powder. There are 3 kinds of milk as follows:
  - (3.1) Whole milk powder.
  - (3.2) Partly skimmed milk powder.
  - (3.3) Skimmed milk powder.
- (4) Condensed milk. There are 6 kinds of milk as follows:
  - (4.1) Unsweetened condensed whole milk.
  - (4.2) Sweetened condensed whole milk.

- (4.3) Unsweetened condensed partly skimmed milk.
- (4.4) Sweetened condensed partly skimmed milk.
- (4.5) Unsweetened condensed skimmed milk.
- (4.6) Sweetened condensed skimmed milk.
- (5) Recombined milk. There are 9 kinds of milk as follows:
  - (5.1) Recombined whole milk.
  - (5.2) Recombined partly skimmed milk.
  - (5.3) Recombined skimmed milk.
  - (5.4) Unsweetened recombined whole milk.
  - (5.5) Sweetened recombined whole milk.
  - (5.6) Unsweetened recombined partly skimmed milk.
  - (5.7) Sweetened recombined partly skimmed milk.
  - (5.8) Unsweetened recombined skimmed milk.
  - (5.9) Sweetened recombined skimmed milk.
  - (6) Filled milk. There are 8 kinds of milk as follows:
    - (6.1) Filled whole milk.
    - (6.2) Filled partly skimmed milk.
    - (6.3) Filled whole milk powder.
    - (6.4) Filled partly skimmed milk powder.
    - (6.5) Filled condensed whole milk.
    - (6.6) Unsweetened filled partly skimmed milk.
    - (6.7) Sweetened filled condensed whole milk.
    - (6.8) Sweetened filled condensed partly skimmed milk.

Clause 5. Cow's milk as stipulated in Clause 4(3), Clause 4(5) and Clause 4(6) may be fortified by other nutrients to increase types and quantities of nutrients beside the prescribed types in this notification and shall follow to the criteria and conditions base on the fortification of nutrients in food products of Thai Food and drug administration.

Clause 6. Fresh Plain Fluid cow's milk and Plain Fluid cow's milk, shall be one of the following processes:

- "(1) Pasteurization means heat treatment process in order to reduce the number of microorganisms to a limit that is safe for consumers and to inhibit the activity of enzyme phosphatase, by using one of the following temperature and time
- (1.1)Temperature not less than 63 °C and hold at this temperature for not less than 30 minutes then cool immediately at temperature 5 °C or less, or
- (1.2)Temperature not less than 72  $^{\circ}$ C and hold at this temperature for not less than 15 seconds then cool immediately at temperature 5  $^{\circ}$ C or less, or
- (1.3)Temperature and time to provide the heat treatment process equivalent to those in (1.1) and (1.2) then cool immediately at temperature 5  $^{\circ}$ C or less".
- (2) Sterilization means the heat treatment process to destroy some microorganisms of milk in sealed containers at temperature of not less than 100 degree Celsius by appropriate length of times and shall be incorporated with homogenization process.
- (3) U.H.T. means the heat treatment process to destroy some microorganisms at temperature of not less than 133 degree Celsius for not less than 1 second. Then the treated milk shall be packed in aseptic conditions and shall be incorporated with homogenization process.
- (4) Other equivalent processes to as stipulated in (1), (2), or (3) to be approved by the Food Committee.
- Clause 7. Fresh Plain Fluid cow's milk or Plain Fluid cow's milk which has been passed through the heat treatment processes shall be of qualities or standards as follows:
- (1) Free of communicable disease to man such as tuberculosis, miscarriage, etc.
  - (2) Free of colostrum.
- (3) Shall have odour inherent to that characteristics of Fresh Plain Fluid cow's milk and Plain Fluid cow's milk
  - (4) Shall be in homogeneous liquid form.

- (5) Free of toxic substances, toxic substances released by microorganisms, and contaminants in quantity which may be hazardous to health, such as: residuals of pesticides, anti-biotic substances, aflatoxin, etc.
  - (6) Free of preservatives.
  - (7) Free of artificial sweeteners.
  - (8) Milk protein content not less than 2.8% by weight.
  - (9) Milk solid non fat and milk fat as follows:
- (9.1) Milk solid non-fat content not less than 8.25% by weight, milk fat content not less than 3.2% by weight, for heat treated raw whole milk.
- (9.2) 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, for heat treated raw partly skimmed milk.
- (9.3) Milk solid non-fat content not less than 8.8% by weight, milk fat content not more than 0.1% by weight, for heat treated raw skimmed milk.
  - (10) Free of pathogenic microorganisms.
- (11) Escherichia coli shall not be detected in 0.1 ml. of heat treated cow's milk.
- (12) Bacterial count in pasteurized cow's milk shall be detected not more than 10,000 in 1 ml. at manufacturing factory and not more than 50,000 at all time after the departure from manufacturing to the expiry date on the label.
- (13) Coliform bacterial shall be detected not more than 100 in 1 ml. of pasteurized cow's milk at manufacturing factory.
- (14) Bacteria shall not be detected in 1 ml. of both sterilized milk and U.H.T. milk.
- Clause 8. Pasteurized milk shall be stored at temperature of not more than 8 degree Celcius at all time after being packed until reached to consumers and total consumable period of not more than 10 days as from the packaged date for sale.

In cases where total consumable period shown is longer than as stipulated in the first phrase, there shall be of qualities or standards control measures at all time after being packed until sold to consumers as agree by Thai Food and drug administration.

Clause 9. Sterilization 's milk or UHT's milk shall be stored at room temperature for not less than 5 days as from the packaged date but prior to sell for inspection of qualities or standards which are prescribed and the characteristics is not changed from the original products.

#### Clause 10. Milk powder shall be of qualities or standards as follows:

- (1) Shall have odour inherent to that characteristics of such particular milk powder.
  - (2) Shall be in powder form without lump.
  - (3) Moisture content not more than 5% by weight.
- (4) Free of toxic substances, toxic substances released by microorganisms, and contaminants in quantity which may be hazardous to health, such as: residuals of pesticides, anti-biotic substances, aflatoxin, etc.
  - (5) Free of preservatives.
  - (6) Free of artificial sweeteners.
  - (7) Milk protein non-fat content not less than 34% by weight.
  - (8) Milk fat content as follows:
    - (8.1) Not less than 26% by weight, for whole milk powder.
- (8.2) More than 1.5% by weight but less than 26% by weight, for partly skimmed milk powder.
  - (8.3) Not more than 1.5% by weight, for skimmed milk powder.
- (9) Pathogenic microorganisms shall follow to the notification of the Ministry of Public Health, Re: Food Standards as regards Pathogens
  - (10) Escherichia coli shall not be detected in 0.1 gm. of milk powder.
- (11) Bacteria shall not be detected more than 50,000 in 1 gm. of milk powder.

## Clause 11. Condensed milk shall be of qualities or standards as follows:

- (1) Shall have odour inherent to that characteristics of such particular condensed milk.
  - (2) Shall be in homogeneous form without lump.
  - (3) Free of preservatives.
  - (4) Free of artificial sweeteners.
- (5) Free of toxic substances, toxic substances released by microorganisms, and contaminations in quantity which may be hazardous to health, such as: residuals of pesticides, anti-biotic substances, aflatoxin, etc.
  - (6) Milk protein non-fat content not less than 34% by weight.
  - (7) Milk solid and milk fat as follows:
- (7.1) Milk solid content not less than 25% by weight and milk fat content not less than 7.5% by weight, for unsweetened condensed whole milk.
- (7.2) Milk solid content not less than 28% by weight and milk fat content not less than 8% by weight, for sweetened condensed whole milk.
- (7.3) Milk solid content not less than 20% by weight and milk fat content more than 1% by weight, but not up to 7.5% by weights, for unsweetened condensed partly skimmed milk.
- (7.4) Milk solid content not less than 24% by weight and milk fat content more than 1% by weight but not up to 8% by weight, for sweetened condensed partly skimmed milk.
- (7.5) Milk solid content not less than 20% by weight and milk fat content not more than 1% by weight, for unsweetened condensed skimmed milk.
- (7.6) Milk solid content not less than 24% by weight and milk fat content not more than 1% by weight, for sweetened condensed skimmed milk.
- (8) Vitamin A content not less than 330 micrograms retinal per 100 gm. of sweetened condensed milk.
- (9) Pathogenic microorganisms shall follow to the notification of the Ministry of Public Health, Re: Food Standards as regards Pathogens

- (10) Yeast and mould altogether shall not more than 10 in 1 gm. of sweetened condensed milk.
- (11) Coliform bacteria shall not be detected in 0.1 gm. of sweetened condensed milk.
- (12) Bacteria shall be detected not more than 10,000 in 1 gm. of sweetened condensed milk.
- (13) Bacteria shall not be detected in 0.1 ml. of unsweetened condensed milk.

#### Clause 12. Recombined milk shall be of qualities or standards as follows:

- (1) Recombined whole milk shall have the same qualities or standards as heat treated raw whole milk.
- (2) Recombined partly skimmed milk shall have the same qualities or standards as heat treated raw partly skimmed milk.
- (3) Recombined skimmed milk shall have the same qualities or standards as heat treated raw skimmed milk.
- (4) Recombined unsweetened condensed whole milk shall have the same qualities or standards as unsweetened condensed whole milk.
- (5) Recombined sweetened condensed whole milk shall have the same qualities or standards as sweetened condensed whole milk.
- (6) Recombined unsweetened condensed partly skimmed milk shall have the same qualities or standards as unsweetened condensed partly skimmed milk.
- (7) Recombined sweetened condensed partly skimmed milk shall have the same qualities or standards as sweetened condensed partly skimmed milk.
- (8) Recombined unsweetened condensed skimmed milk shall have the same qualities or standards as unsweetened condensed skimmed milk.
- (9) Recombined sweetened condensed skimmed milk shall have the same qualities or standards as sweetened condensed skimmed milk.

Clause 13. Recombined milk as stipulated in Clause 8(1) (2) and (3) shall be passed through heat treatment process as stipulated in Clause 11 and shall follow to the followings:

- (1) In case of heat treatment processes as stipulated in Clause 11(1) is used, Clause 13 shall also be required.
- (2) In case of heat treatment processes as stipulated in Clause 11(2) or (3) is used. Clause 14 shall also be required.

#### Clause 14. Filled milk shall be of qualities or standards as follows:

- (1) Filled whole milk shall contain milk solid non-fat of not less than 8.25% by weight and total fat not less than 3.2% by weight and shall be of qualities or standards as stipulated in Clause 7(1) (2) (3) (4) (5) (6) (7) (8) (10) (11) (12) (13) and (14).
- (2) Filled partly skimmed milk shall contain milk solid non-fat of not less than 8.5% by weight and total fat more than 0.1% by weight but not up to 3.2% by weight and shall be of qualities or standards as stipulated in Clause 7(1) (2) (3) (4) (5) (6) (7) (8) (10) (11) (12) (13) and (14).
- (3) Filled whole milk powder shall contain total fat of not less than 26% by weight and shall be of qualities or standards as stipulated in Clause 10(1) (2) (3) (4) (5) (6) (7) (9) (10) and (11).
- (4) Filled partly skimmed milk shall contain total fat of more than 1.5% by weight but not up to 26% by weight and shall be of qualities or standards as stipulated in Clause 10(1) (2) (3) (4) (5) (6) (7) (9) (10) and (11).
- (5) Filled unsweetened condensed whole milk shall contain milk solid non-fat of not less than 17.5% by weight and total fat not less than 6% by weight and shall be of qualities or standards as stipulated in Clause 11(1) (2) (3) (4) (5) (6) (9) and (13).
- (6) Filled unsweetened condensed partly skimmed milk shall contain milk solid non-fat of not less than 20% by weight and total fat more than 1% by but not up to 6% by weight and shall be of qualities or standards as stipulated in Clause 11(1) (2) (3) (4) (5) (6) (9) and (13).

- (7) Filled sweetened condensed whole milk shall contain milk solid non-fat of not less than 20% by weight and total fat not less than 7% by weight and shall be of qualities or standards as stipulated in Clause 11(1) (2) (3) (4) (5) (6) (8) (9) (10) (11) and (12).
- (8) Filled sweetened condensed partly skimmed milk shall contain milk solid non-fat of not less than 24% by weight and total fat more than 1% by weight but not up to 7% by weight and shall be of qualities or standards as stipulated in Clause 11(1) (2) (3) (4) (5) (6) (8) (9) (10) (11) and (12).

Clause 15. Filled milk as stipulated in Clause 4(6)(6.1) and (6.2) shall be passed through heat treatment processes as stipulated in Clause 6 and shall follow to the followings:

- (1) In case of heat treatment processes as stipulated in Clause 6(1) is used, Clause 8 shall also be followed.
- (2) In case of heat treatment processes as stipulated in Clause 6(2) or (3) is used, Clause 9 shall also be required.

Clause 16. In cow's milk production, if food additives are necessary to be used, except preservatives, the use of food additives shall follow to the criteria as prescribed in the attachment of this notification.

#### Clause 17. Cow's milk producer or importer shall follow to

- (1) The notification of the Ministry of Public Health, Re: production processes, production equipment, and foods storages other than milk products in liquid form which passed through pasteurization heat treatment
- (2) The notification of the Ministry of Public Health, Re: Production Processes, Production Equipments, and storage of ready-to-consume milk products in liquid form which passed through pasteurization heat treatment;

Clause 18. Usage of cow's milk containers shall follow to the notification of the Ministry of Public Health, Re: Containers.

Clause 19. Labels of cow's milk shall follow to the notification of the Ministry of Public Health, Re: Labels, except for the names cow's milk, declarations of some kind of cow's milk, ingredient cow's milk shall be as follows:

- (1) Nomenclatures of cow's milk as follows:
- (1.1) Heat treated raw whole milk as stipulated in Clause 5, is prescribed to be named as follows:
- (1.1.1) "fresh plain fluid cow's milk" for Fresh Plain Fluid Cow's Milk
- (1.1.2) "......plain fluid cow's milk" (The space provided is for specifying the heat treatment process according to No. 6) for full cream.
- (1.1.2) "......partly skimmed plain fluid cow's milk" or "partly skimmed plain fluid cow's milk...." (designate the heat treatment process as stipulated in Clause 6 in the blank), for partly skimmed milk.
- (1.1.3) "...... skimmed plain fluid cow's milk" or "skimmed plain fluid cow's milk...." (designate the heat treatment process as stipulated in Clause 6 in the blank), for skimmed milk.
- (1.2) Milk powder, as stipulated in Clause 4(3), is prescribed to be named as follows:
  - (1.2.1) "Milk powder" for whole milk powder.
- (1.2.2) "Partly skimmed milk powder" for partly skimmed milk powder.
  - (1.2.3) "Skimmed milk powder" for skimmed milk powder.
- (1.3) Condensed milk, as stipulated in Clause 4(4), is prescribed to be named as follows:
- (1.3.1) "Unsweetened condensed milk" for unsweetened condensed whole milk.
- (1.3.2) "Sweetened condensed milk" for sweetened condensed whole milk.

- (1.3.3) "Unsweetened condensed partly skimmed milk" for unsweetened condensed partly skimmed milk.
- (1.3.4) "Sweetened condensed partly skimmed milk" for sweetened condensed partly skimmed milk.
- (1.3.5) "Unsweetened condensed skimmed milk" for unsweetened condensed skimmed milk.
- (1.3.6) "Sweetened condensed skimmed milk" for sweetened condensed skimmed milk.
- (1.4) Recombined milk, as stipulated in Clause 4(5), is prescribed to be named as follows:
- (1.4.1) "..... recombined milk" (designate the heat treatment process as stipulated in Clause 6 in the blank), for recombined whole milk.
- (1.4.2) "..... recombined partly skimmed milk" (designate the heat treatment process as stipulated in Clause 6 in the blank), for recombined partly skimmed milk.
- (1.4.3) "..... recombined skimmed milk" (designate the heat treatment process as stipulated in Clause 6 in the blank), for recombined skimmed milk.
- (1.4.4) "Recombined unsweetened condensed milk" for recombined unsweetened condensed whole milk.
- (1.4.5) "Recombined sweetened condensed milk" for recombined sweetened condensed whole milk.
- (1.4.6) "Recombined unsweetened condensed partly skimmed milk" for recombined unsweetened condensed partly skimmed milk.
- (1.4.7) "Recombined sweetened condensed partly skimmed milk" for recombined sweetened condensed partly skimmed milk.
- (1.4.8) "Recombined unsweetened condensed skimmed milk" for recombined unsweetened condensed skimmed milk.
- (1.4.9) "Recombined sweetened condensed skimmed milk" for recombined sweetened condensed skimmed milk.

(1.5) Filled milk, as stipulated in Clause 4 (6), is prescribed to be named as follows:

(1.5.1) "..... filled milk" (designate the heat treatment process as stipulated in Clause 6 in the blank), for filled whole milk.

(1.5.2) ".....filled partly skimmed milk" (designate the heat treatment process as stipulated in Clause 6 in the blank), for filled partly skimmed milk.

(1.5.3) "Filled milk powder", for filled whole milk powder.

(1.5.4) "Filled partly skimmed milk powder", for filled partly skimmed milk powder.

(1.5.5) "Filled unsweetened condensed milk", for filled unsweetened condensed whole milk.

(1.5.6) "Filled unsweetened condensed partly skimmed milk", for filled unsweetened condensed partly skimmed milk.

(1.5.7) "Filled sweetened condensed milk", for filled sweetened condensed whole milk.

(1.5.8) "Filled sweetened condensed partly skimmed milk", for filled sweetened condensed partly skimmed milk.

Trade names may be used as names of cow's milk products but shall be accompanied by expression as stipulated in (1) for each category and may be expressed on the same line with trade names and may be in different alphabets size of trade names but subject to be clearly read.

- (2) The declarations of warning for some kind of cow's milk products as follows: Declaration of "Do not feed infants" in red bold alphabets height of not be less than 5 mm., in white background rectangular frame, which the border colour shall be in contrast to the background of the label of cow's milk products as stipulated in Clause 4(3)(3.2) and (3.3), Clause 4(4)(4.2)(4.3)(4.4)(4.5) and (4.6), Clause 4(5)(5.5)(5.6)(5.7) (5.8)and (5.9), and Clause 4 (6)
- (3) Labeling of cow's milk ingredient shall be declared in percentage of weight and in descending order. Milk powder or Filled milk powder, must be declared as

"Whole milk powder." "Partly skimmed milk powder" must be declared as "Skimmed milk powder." "Filled whole milk powder" must be declared as "Filled partly skimmed milk powder". However, Plain Fluid cow's milk use milk powder adjusted Total Solid non fat not exceed 1 percentage of weight maybe declared. "milk powder adjusted Total Solid non fat"

Clause 20. Any producer or importer of Cow's milk, who has been granted Registration Permit or Food Labelling Permit, as the case may be, pursuant to the notification of the Ministry of Public Health (No. 265) B.E. 2545 (2002), Re: Cow's Milk, dated 19th December B.E. 2545 (2002) and the notification of the Ministry of Public Health (No.282) B.E. 2547 (2004), Re: Cow's Milk, dated 30th August B.E. 2547 (2004)., prior to this notification come into force shall continue to use the food serial number as such and shall be regarded that the food has been notified according to this notification.

Clause 21. Any producer or importer of Cow's milk, who has been granted Registration Permit prior to this notification come into force, shall be amended details to comply with this notification within 180 day after this notification come into force, and the remaining labels are allowed to be used but not exceeding to two year after this notification come into force.

Clause 22. This notification shall come into force after 180 days as from the day following date of its publication in the Government Gazette.

Notified on 26<sup>th</sup> June 2013

(Signed) Pradit Sintavanarong

(Mr. Pradit Sintavanarong

Minister of Public Health

(Published in the Government Gazette Vol. 130 Special Part 87 Ngor, dated 24<sup>th</sup> July 2013)

**Note**: This English version of the Notification is translated to meet the need of the non-Thai speaking people. In the case of any discrepancy between the Thai original and the English translation, the former will take priority.

Attachment of the notification of Ministry of Public Health (No. 350) B.E. 2556 Re: Cow's milk.

1. Criteria for prescribed food additives allowed to be used in milk powder.

| Items | Functions          | Food additives                                 | Maximum level                     |
|-------|--------------------|--|-----------------------------------|
|       |                    |  | (mg/kg)                           |
| 1.    | Stabilizers        | Sodium dihydrogen citrate (INS; 331(i))        | 5,000                             |
|       |                    | Trisodium citrate (INS; 331(iii))              | Singly or in                      |
|       |                    | Potassium dihydrogen citrate (INS; 332(i))     | combination,                      |
|       |                    | Tripotassium citrate (INS; 332(ii))            | expressed as anhydrous substances |
| 2.    | Firming agents     | Potassium chloride(INS; 508)                   | GMP                               |
|       |                    | Calcium chloride (INS; 509)                    | GMP                               |
| 3.    | Acidity regulators | Sodium dihydrogen phosphate (INS; 339(i))      | 5,000                             |
|       |                    | Disodium hydrogen phosphate (INS; 339(ii))     | Singly or in                      |
|       |                    | Trisodium phosphate) (INS; 339(iii))           | combination,                      |
|       |                    | Potassium dihydrogen phosphate (INS; 340(i))   | expressed as                      |
|       |                    | Dipotassium hydrogen phosphate (INS; 340(ii))  | anhydrous substances              |
|       |                    | Tripotassium phosphate (INS; 340(iii))         |                                   |
|       |                    | Disodium diphosphate (INS; 450(i))             |                                   |
|       |                    | Trisodium diphosphate (INS; 450(ii))           |                                   |
|       |                    | Tetrasodium diphosphate (INS; 450(iii))        |                                   |
|       |                    | Tetrapotassium diphosphate (INS; 450(v))       |                                   |
|       |                    | Dicalcium diphosphate (INS; 450(vi))           |                                   |
|       |                    | Calcium dihydrogen diphosphate (INS; 450(vii)) |                                   |
|       |                    | Pentasodium triphosphate (INS; 451(i))         |                                   |
|       |                    | Pentapotassium triphosphate (INS; 451(ii))     |                                   |
|       |                    | Sodium polyphosphate (INS; 452(i))             |                                   |
|       |                    | Potassium polyphosphate (INS; 452(ii))         |                                   |
|       |                    | Sodium calcium polyphosphate (INS; 452(iii))   |                                   |
|       |                    | Calcium polyphosphate (INS; 452(iv))           | ]                                 |
|       |                    | Ammonium polyphosphate (INS; 452(v))           | ]                                 |
|       |                    | Sodium carbonate (INS; 500(i))                 | ]                                 |
|       |                    | Sodium hydrogen carbonate (INS; 500(ii))       | ]                                 |
|       |                    | Sodium sesquicarbonate (INS; 500(iii))         | ]                                 |
|       |                    | Potassium carbonate (INS; 501(i))              |                                   |
|       |                    | Potassium hydrogen carbonate (INS; 501(ii))    |                                   |

| Items | Functions        | Food additives                                   | Maximum level |
|-------|------------------|--|---------------|
|       |                  |  | (mg/kg)       |
| 4.    | Emulsifiers      | Lecithins (INS; 322)                             | GMP           |
|       |                  | Mono- and diglycerides of fatty acid) (INS; 471) | 2,500         |
| 5.    | Anticaking agent | Calcium carbonate (INS; 170(i))                  | 10,000        |
|       |                  | Tricalcium phosphate (INS; 341(iii))             | Singly or in  |
|       |                  | Trimagnesium phosphate (INS; 343(iii))           | combination   |
|       |                  | Magnesium carbonate (INS; 504(i))                |               |
|       |                  | Magnesium oxide (INS; 530)                       |               |
|       |                  | Silicon dioxide, amorphous (INS; 551)            |               |
|       |                  | Calcium silicate (INS; 552)                      |               |
|       |                  | Magnesium silicates, synthetic (INS; 553(i))     |               |
|       |                  | TALC (INS; 553(iii))                             |               |
|       |                  | Sodium aluminosilicate (INS; 554)                |               |
|       |                  | Calcium aluminium silicate (INS; 556)            |               |
|       |                  | Aluminium silicate (INS; 559)                    |               |
| 6.    | Antioxidants     | Ascorbic acid, L- (INS; 300)                     | 500           |
|       |                  | Sodium ascorbate (INS; 301)                      | Expressed as  |
|       |                  | Ascorbyl palmitate (INS; 304)                    | ascorbic acid |
|       |                  | Butylated hydroxyanisole (INS; 320)              | 100           |

# 2. Criteria for prescribed food additives allowed to be used in Blend of evaporated skimmed milk and vegetable fat.

| Items | Functions          | Food additives                             | Maximum level            |
|-------|--------------------|--|--------------------------|
|       |                    |  | (mg/kg)                  |
| 1.    | Stabilizers        | Sodium dihydrogen citrate (INS; 331(i))    | GMP                      |
|       |                    | Trisodium citrate (INS; 331(iii))          | GMP                      |
|       |                    | Potassium dihydrogen citrate (INS; 332(i)) | GMP                      |
|       |                    | Tripotassium citrate (INS; 332(ii))        | GMP                      |
|       |                    | Calcium citrate (INS; 333)                 | GMP                      |
|       |                    | Potassium chloride(INS; 508)               | GMP                      |
|       |                    | Calcium chloride(INS; 509)                 | GMP                      |
| 2.    | Acidity regulators | Calcium carbonate (INS; 170(i))            | GMP                      |
|       |                    | Sodium dihydrogen phosphate (INS; 339(i))  | 4,400                    |
|       |                    | Disodium hydrogen phosphate (INS; 339(ii)) | singly or in combination |

| Items | Functions   | Food additives                                | Maximum level  |
|-------|-------------|---|----------------|
|       |             |   | (mg/kg)        |
|       |             | Trisodium phosphate (INS; 339(iii))           | as phosphorous |
|       |             | Potassium dihydrogen phosphate (INS;          |                |
|       |             | 340(i))                                       |                |
|       |             | Dipotassium hydrogen phosphate (INS; 340(ii)) |                |
|       |             | Tripotassium phosphate (INS; 340(iii))        |                |
|       |             | Calcium dihydrogen phosphate (INS; 341(i))    |                |
|       |             | calcium hydrogen phosphate (INS; 341(ii))     |                |
|       |             | Tricalcium phosphate (INS; 341(iii))          |                |
|       |             | Disodium diphosphate (INS; 450(i))            |                |
|       |             | Trisodium diphosphate (INS; 450(ii))          |                |
|       |             | Tetrasodium diphosphate (INS; 450(iii))       |                |
|       |             | Tetrapotassium diphosphate (INS; 450(v))      |                |
|       |             | Dicalcium diphosphate (INS; 450(vi))          |                |
|       |             | Calcium dihydrogen diphosphate (INS;          |                |
|       |             | 450(vii))                                     |                |
|       |             | Pentasodium triphosphate (INS; 451(i))        |                |
|       |             | Pentapotassium triphosphate (INS; 451(ii))    |                |
|       |             | Sodium polyphosphate (INS; 452(i))            |                |
|       |             | Potassium polyphosphate (INS; 452(ii))        |                |
|       |             | Sodium calcium polyphosphate (INS; 452(iii))  |                |
|       |             | Calcium polyphosphate (INS; 452(iv))          |                |
|       |             | Ammonium polyphosphate (INS; 452(v))          |                |
|       |             | Sodium carbonate (INS; 500(i))                | GMP            |
|       |             | Sodium hydrogen carbonate (INS; 500(ii))      | GMP            |
|       |             | Sodium sesquicarbonate (INS; 500(iii))        | GMP            |
|       |             | Potassium carbonate (INS; 501(i))             | GMP            |
|       |             | Potassium hydrogen carbonate (INS; 501(ii))   | GMP            |
| 3.    | Emulsifiers | Lecithins (INS; 322)                          | GMP            |
| 4.    | Thickner    | Carrageenan (INS; 407)                        | GMP            |
|       |             | Processed euchema seaweed (PES)(INS; 407a)    | GMP            |

3. Criteria for prescribed food additives allowed to be used in Blend of evaporated skimmed milk and vegetable fat in powdered form

| Items | Functions          | Food additives                                 | Maximum level            |
|-------|--------------------|--|--------------------------|
|       |                    |  | (mg/kg)                  |
| 1.    | Stabilizers        | Sodium dihydrogen citrate (INS; 331(i))        | GMP                      |
|       |                    | Trisodium citrate (INS; 331(iii))              | GMP                      |
|       |                    | Potassium dihydrogen citrate (INS; 332(i))     | GMP                      |
|       |                    | Tripotassium citrate (INS; 332(ii))            | GMP                      |
|       |                    | Potassium chloride(INS; 508)                   | GMP                      |
|       |                    | Calcium chloride(INS; 509)                     | GMP                      |
| 2.    | Acidity regulators | Sodium dihydrogen phosphate (INS; 339(i))      | 4,400                    |
|       |                    | Disodium hydrogen phosphate (INS; 339(ii))     | singly or in combination |
|       |                    | Trisodium phosphate (INS; 339(iii))            | as phosphorous           |
|       |                    | Potassium dihydrogen phosphate (INS; 340(i))   |                          |
|       |                    | Dipotassium hydrogen phosphate (INS; 340(ii))  |                          |
|       |                    | Tripotassium phosphate (INS; 340(iii))         |                          |
|       |                    | Calcium dihydrogen phosphate (INS; 341(i))     |                          |
|       |                    | calcium hydrogen phosphate (INS; 341(ii))      |                          |
|       |                    | Disodium diphosphate (INS; 450(i))             | 1                        |
|       |                    | Trisodium diphosphate (INS; 450(ii))           | 1                        |
|       |                    | Tetrasodium diphosphate (INS; 450(iii))        |                          |
|       |                    | Tetrapotassium diphosphate (INS; 450(v))       |                          |
|       |                    | Dicalcium diphosphate (INS; 450(vi))           |                          |
|       |                    | Calcium dihydrogen diphosphate (INS; 450(vii)) |                          |
|       |                    | Pentasodium triphosphate (INS; 451(i))         |                          |
|       |                    | Pentapotassium triphosphate (INS; 451(ii))     |                          |
|       |                    | Sodium polyphosphate (INS; 452(i))             | ]                        |
|       |                    | Potassium polyphosphate (INS; 452(ii))         |                          |
|       |                    | Sodium calcium polyphosphate (INS; 452(iii))   |                          |
|       |                    | Calcium polyphosphate (INS; 452(iv))           |                          |
|       |                    | Ammonium polyphosphate (INS; 452(v))           |                          |
|       |                    | Sodium carbonate (INS; 500(i))                 | GMP                      |
|       |                    | Sodium hydrogen carbonate (INS; 500(ii))       | GMP                      |

| (mg/kg)  GMP  |
|---|
|   |
|   |
| GMP   |
| 4,400   |
| y or in combination<br>as phosphorous               |
| 500   |
| s ascorbic acid<br>ombination as<br>corbyl stearate |
| 80  |
| ombination as corbyl stearate                       |
| 100   |
| singly or in  |
| combination. ressed on fat or oil basis             |
|   |

4. Criteria for prescribed food additives allowed to be used in Evaporated milks

| Items | Functions          | Food additives                                 | Maximum level                               |
|-------|--------------------|--|---|
|       |                    |  | (mg/kg)                                     |
| 1.    | Stabilizers        | Sodium dihydrogen citrate (INS; 331(i))        | 2000 singly or 3000                         |
|       |                    | Trisodium citrate (INS; 331(iii))              | in combination                              |
|       |                    | Potassium dihydrogen citrate (INS; 332(i))     | Expressed as                                |
|       |                    | Tripotassium citrate (INS; 332(ii))            | anhydrous                                   |
|       |                    | Calcium citrate (INS; 333)                     | substances                                  |
| 2.    | Firming agents     | Potassium chloride (INS; 508)                  | 2000 singly or 3000                         |
|       |                    | Calcium chloride (INS; 509)                    | in combination<br>Expressed as<br>anhydrous |
|       | A                  | 0.1.1  | substances                                  |
| 3.    | Acidity regulators | Calcium carbonate (INS; 170(i))                | 2000 singly or 3000 in combination          |
|       |                    | Sodium dihydrogen phosphate (INS; 339(i))      | Expressed as                                |
|       |                    | Disodium hydrogen phosphate (INS; 339(ii))     | anhydrous                                   |
|       |                    | Trisodium phosphate (INS; 339(iii))            | substances                                  |
|       |                    | Potassium dihydrogen phosphate (INS; 340(i))   | -   |
|       |                    | Dipotassium hydrogen phosphate (INS; 340(ii))  |   |
|       |                    | Tripotassium phosphate (INS; 340(iii))         |   |
|       |                    | Calcium dihydrogen phosphate (INS; 341(i))     |   |
|       |                    | calcium hydrogen phosphate (INS; 341(ii))      | 1   |
|       |                    | Tricalcium phosphate (INS; 341(iii))           |   |
|       |                    | Disodium diphosphate (INS; 450(i))             |   |
|       |                    | Trisodium diphosphate (INS; 450(ii))           |   |
|       |                    | Tetrasodium diphosphate (INS; 450(iii))        |   |
|       |                    | Tetrapotassium diphosphate (INS; 450(v))       | 1   |
|       |                    | Dicalcium diphosphate(INS; 450(vi))            |   |
|       |                    | Calcium dihydrogen diphosphate (INS; 450(vii)) |   |
|       |                    | Pentasodium triphosphate (INS; 451(i))         |   |
|       |                    | Pentapotassium triphosphate (INS; 451(ii))     | 1   |
|       |                    | Sodium polyphosphate (INS; 452(i))             |   |
|       |                    | Potassium polyphosphate (INS; 452(ii))         |   |
|       |                    | Sodium calcium polyphosphate (INS; 452(iii))   |   |
|       |                    | Calcium polyphosphate (INS; 452(iv))           | ]   |
|       |                    | Ammonium polyphosphate (INS; 452(v))           |   |

| Items | Functions   | Food additives                              | Maximum level<br>(mg/kg) |
|-------|-------------|---|--------------------------|
|       |             | Sodium carbonate (INS; 500(i))              |                          |
|       |             | Sodium hydrogen carbonate (INS; 500(ii))    |                          |
|       |             | Sodium sesquicarbonate (INS; 500(iii))      |                          |
|       |             | Potassium carbonate (INS; 501(i))           |                          |
|       |             | Potassium hydrogen carbonate (INS; 501(ii)) |                          |
| 4.    | Emulsifiers | Lecithins (INS; 322)                        | GMP                      |
| 5.    | Thickner    | Carrageenan (INS; 407)                      | 150                      |

# 5. Criteria for prescribed food additives allowed to be used in Sweetened condensed milks

| Items | Functions          | Food additives                                | Maximum level          |
|-------|--------------------|---|------------------------|
|       |                    |   | (mg/kg)                |
| 1.    | Stabilizers        | Sodium dihydrogen citrate (INS; 331(i))       | 2000 singly or 3000 in |
|       |                    | Trisodium citrate (INS; 331(iii))             | combination            |
|       |                    | Potassium dihydrogen citrate (INS; 332(i))    | Expressed as           |
|       |                    | Tripotassium citrate (INS; 332(ii))           | anhydrous substances   |
|       |                    | แคลเซียมซิเตรต (Calcium citrate) (INS; 333)   |                        |
| 2.    | Firming agents     | Potassium chloride (INS; 508)                 | 2000 singly or 3000 in |
|       |                    | Calcium chloride (INS; 509)                   | combination            |
|       |                    |   | Expressed as           |
|       |                    |   | anhydrous substances   |
| 3.    | Acidity regulators | Calcium carbonate (INS; 170(i))               | 2000 singly or 3000 in |
|       |                    | Sodium dihydrogen phosphate (INS; 339(i))     | combination            |
|       |                    | Disodium hydrogen phosphate (INS; 339(ii))    | Expressed as           |
|       |                    | Trisodium phosphate (INS; 339(iii))           | anhydrous substances   |
|       |                    | Potassium dihydrogen phosphate (INS; 340(i))  |                        |
|       |                    | Dipotassium hydrogen phosphate (INS; 340(ii)) |                        |
|       |                    | Tripotassium phosphate (INS; 340(iii))        |                        |
|       |                    | Calcium dihydrogen phosphate (INS; 341(i))    |                        |
|       |                    | calcium hydrogen phosphate (INS; 341(ii))     |                        |
|       |                    | Tricalcium phosphate (INS; 341(iii))          |                        |
|       |                    | Disodium diphosphate (INS; 450(i))            |                        |
|       |                    | Trisodium diphosphate (INS; 450(ii))          |                        |
|       |                    | Tetrasodium diphosphate (INS; 450(iii))       |                        |

| Items | Functions         | Food additives                                 | Maximum level |
|-------|-------------------|--|---------------|
|       |                   |  | (mg/kg)       |
|       |                   | Tetrapotassium diphosphate (INS; 450(v))       |               |
|       |                   | Dicalcium diphosphate (INS; 450(vi))           |               |
|       |                   | Calcium dihydrogen diphosphate (INS; 450(vii)) |               |
|       |                   | Pentasodium triphosphate (INS; 451(i))         |               |
|       |                   | Pentapotassium triphosphate (INS; 451(ii))     |               |
|       |                   | Sodium polyphosphate (INS; 452(i))             |               |
|       |                   | Potassium polyphosphate (INS; 452(ii))         |               |
|       |                   | Sodium calcium polyphosphate (INS; 452(iii))   |               |
|       |                   | Calcium polyphosphate (INS; 452(iv))           |               |
|       |                   | Ammonium polyphosphate (INS; 452(v))           |               |
|       |                   | Sodium carbonate (INS; 500(i))                 |               |
|       |                   | Sodium hydrogen carbonate (INS; 500(ii))       |               |
|       |                   | Sodium sesquicarbonate (INS; 500(iii))         |               |
|       |                   | Potassium carbonate (INS; 501(i))              |               |
|       |                   | Potassium hydrogen carbonate (INS; 501(ii))    |               |
| 4.    | อีมัลซีไฟเออร์    | Lecithins (INS; 322)                           | GMP           |
|       | (Emulsifiers)     |  |               |
| 5.    | สารให้ความข้น     | Carrageenan (INS; 407)                         | 150           |
|       | เหนียว (Thickner) |  |               |

6. Criteria for prescribed food additives allowed to be used in Blend of evaporated skimmed milk and vegetable fat in powdered form

| Items | Functions          | Food additives                             | Maximum level            |
|-------|--------------------|--|--------------------------|
|       |                    |  | (mg/kg)                  |
| 1.    | Stabilizers        | Sodium dihydrogen citrate (INS; 331(i))    | GMP                      |
|       |                    | Trisodium citrate (INS; 331(iii))          | GMP                      |
|       |                    | Potassium dihydrogen citrate (INS; 332(i)) | GMP                      |
|       |                    | Tripotassium citrate (INS; 332(ii))        | GMP                      |
|       |                    | Calcium citrate (INS; 333)                 | GMP                      |
|       |                    | Potassium chloride(INS; 508)               | GMP                      |
|       |                    | Calcium chloride(INS; 509)                 | GMP                      |
| 2.    | Acidity regulators | Calcium carbonate (INS; 170(i))            | GMP                      |
|       |                    | Sodium dihydrogen phosphate (INS; 339(i))  | 4,400                    |
|       |                    | Disodium hydrogen phosphate (INS; 339(ii)) | singly or in combination |

| Items | Functions   | Food additives                                | Maximum level  |
|-------|-------------|---|----------------|
|       |             |   | (mg/kg)        |
|       |             | Trisodium phosphate (INS; 339(iii))           | as phosphorous |
|       |             | Potassium dihydrogen phosphate (INS;          |                |
|       |             | 340(i))                                       |                |
|       |             | Dipotassium hydrogen phosphate (INS; 340(ii)) |                |
|       |             | Tripotassium phosphate (INS; 340(iii))        |                |
|       |             | Calcium dihydrogen phosphate (INS; 341(i))    |                |
|       |             | calcium hydrogen phosphate (INS; 341(ii))     |                |
|       |             | Tricalcium phosphate (INS; 341(iii))          |                |
|       |             | Disodium diphosphate (INS; 450(i))            |                |
|       |             | Trisodium diphosphate (INS; 450(ii))          |                |
|       |             | Tetrasodium diphosphate (INS; 450(iii))       |                |
|       |             | Tetrapotassium diphosphate (INS; 450(v))      |                |
|       |             | Dicalcium diphosphate (INS; 450(vi))          |                |
|       |             | Calcium dihydrogen diphosphate (INS;          |                |
|       |             | 450(vii))                                     |                |
|       |             | Pentasodium triphosphate (INS; 451(i))        |                |
|       |             | Pentapotassium triphosphate (INS; 451(ii))    |                |
|       |             | Sodium polyphosphate (INS; 452(i))            |                |
|       |             | Potassium polyphosphate (INS; 452(ii))        |                |
|       |             | Sodium calcium polyphosphate (INS; 452(iii))  |                |
|       |             | Calcium polyphosphate (INS; 452(iv))          |                |
|       |             | Ammonium polyphosphate (INS; 452(v))          |                |
|       |             | Sodium carbonate (INS; 500(i))                | GMP            |
|       |             | Sodium hydrogen carbonate (INS; 500(ii))      | GMP            |
|       |             | Sodium sesquicarbonate (INS; 500(iii))        | GMP            |
|       |             | Potassium carbonate (INS; 501(i))             | GMP            |
|       |             | Potassium hydrogen carbonate (INS; 501(ii))   | GMP            |
| 3.    | Emulsifiers | Lecithins (INS; 322)                          | GMP            |
| 4.    | Thickner    | Carrageenan) (INS; 407)                       | GMP            |
|       |             | Processed euchema seaweed (PES) (INS; 407a)   | GMP            |