

Non-Official

Food Code

MFDS Notice No. 2018-33 (Revision 2018.5.1.)

18. Milk Products

18-1 Milks

1) Definition

Milks refers to products made by pasteurizing or sterilizing raw milk (including partially skimmed milk) or by adjusting milk fat, or milk products reconstituted to contain similar components to raw milk.

2) Requirements for Ingredients, etc.

3) Manufacturing/Processing Standards

(1) Milks shall be pasteurized or sterilized.

(2) Milks may be standardized by reducing milk fat.

(3) Milks shall never be mixed with other materials; however, recombined milk may be added with materials that are similar to raw milk.

4) Food Type

(1) Milk: It refers to a product made by pasteurizing or sterilizing raw milk. (100% raw milk)

(2) Reconstituted milk: It means a milk product reconstituted to contain similar components to raw milk and pasteurized or sterilized; which contains not less than 8% non-fat milk solids.

5) Specifications

(1) Acidity (%): Not more than 0.18 (as lactic acid)

(2) Milk fat (%): Not less than 3.0 (however, 0.6~2.6 for low-fat products, not more than 0.5 for non-fat products)

(3) Bacterial count: $n=5$, $c=2$, $m=10,000$, $M=50,000$ (for sterilized products, $n=5$, $c=0$, $m=0$, when tested according to the general bacterial counting method after being stored for 1 week at 55°C or for 2 weeks at 30°C; except for products containing lactic acid bacteria.)

(4) Coliforms: $n=5$, $c=2$, $m=0$, $M=10$ (Sterilized products are excluded)

(5) Phosphatase: Shall be negative (only applicable to low-temperature long-time

pasteurized and high-temperature short-time pasteurized products)

(6) *Salmonella* spp.: $n=5$, $c=0$, $m=0/25$ g

(7) *Listeria monocytogenes* : $n=5$, $c=0$, $m=0/25$ g

(8) *Staphylococcus aureus* : $n=5$, $c=0$, $m=0/25$ g

18-2 Processed Milks

1) Definition

Processed milks refers to liquid products made by adding food or food additives to raw milk or milk products; except for those containing not less than 0.5% coffee solids.

2) Requirements for Ingredients, etc.

3) Manufacturing/Processing Standards

- (1) Products shall be pasteurized or sterilized after being added with food or food additives; or added with food or food additives aseptically after being pasteurized or sterilized.
- (2) When fortifying milk, fortifying agents shall be added at the appropriate time, considering heat stability and microbial contamination.

4) Food Type

- (1) Fortified milk: It refers to a product made by adding food additives to milks for the purpose of fortifying with vitamins and minerals (100% milks; excluding food additives).
- (2) Lactic acid bacteria-added milk: It refers to a product made by adding lactic acid bacteria to milks (100% milks; excluding lactic acid bacteria).
- (3) Lactose-hydrolyzed milk: It refers to a product made by hydrolyzing or removing lactose from raw milk; or by fortifying with vitamins and minerals, and subsequently pasteurizing or sterilizing.
- (4) Processed milk: It refers to processed milks made by adding food or food additives to raw milk or milk products, other than those specified in Food Type (1)~(3) above.

5) Specifications

- (1) Acidity (%): Not more than 0.18 (as lactic acid; excluding Lactic acid bacteria-added milk and Processed milk)
- (2) Non-fat milk solids (%): Not less than 8.0 (only applicable to Fortified milk and Lactic acid bacteria-added milk);
not less than 4.0 (only applicable to Processed milk)

(3) Milk fat (%)

Specification Type	Fortified milk	Lactic acid bacteria-added milk	Lactose-hydrolyzed milk
Milk Fat (%)	Not less than 3.0 (However, 0.6~2.6 for low-fat products, not more than 0.5 for non-fat products)		

(4) Crude fat (%)

Specification Type	Processed milk
Crude Fat (%)	Not less than 2.7 (However, 0.6~2.6 for low-fat products, non-fat products are excluded)

(5) Lactose (%): Not more than 1.0 (only applicable to Lactose-hydrolyzed milk)

(6) Bacterial count: $n=5$, $c=2$, $m=10,000$, $M=50,000$ (for sterilized products, $n=5$, $c=0$, $m=0$, when tested according to the general bacterial counting method after being stored for 1 week at 55°C or for 2 weeks at 30°C; except for Lactic acid bacteria-added products.)

(7) Coliforms: $n=5$, $c=2$, $m=0$, $M=10$ (sterilized products are excluded)

(8) Phosphatase: Shall be negative (only applicable to low-temperature long-time pasteurized and high-temperature short-time pasteurized products; excluding Lactose-hydrolyzed milk and Processed milk)

(9) Lactic acid bacteria count: Not less than 1,000,000/1 mL (only applicable to lactic acid bacteria-added products)

(10) *Salmonella* spp.: $n=5$, $c=0$, $m=0/25$ g

(11) *Listeria monocytogenes* : $n=5$, $c=0$, $m=0/25$ g

(12) *Staphylococcus aureus* : $n=5$, $c=0$, $m=0/25$ g

18-7 Milk Creams

1) Definition

Milk creams refers to milk fat separated from raw milk or milks, with or without the addition of food or food additives.

2) Requirements for Ingredients, etc.

3) Manufacturing/Processing Standards

(1) Milk creams shall be pasteurized or sterilized; they shall be processed using low-temperature long-time pasteurization (for 30 minutes at 65~68°C); high-temperature short-time pasteurization (for 15 to 20 seconds at 74~76°C); ultra-high-temperature sterilization (for 0.5 to 5 seconds at 130~150°C); or other methods with equivalent or better effect.

(2) Other food or food additives shall not be added to milk cream.

4) Food Type

(1) Milk cream: It refers to milk fat separated from raw milk or milks, containing not less than 30% milk fat content.

(2) Processed milk cream: It refers to a product made by adding food or food additives to milk cream and processing it, containing not less than 18% milk fat content (notless than 50% for powder products).

5) Specifications

Types Items	Milk Cream	Processed Milk Cream
(1) Properties and Conditions	Homogenized milky-white~yellow fluid liquid or semi-solid products without off-taste or flavor	Shall have unique color, gloss and flavor without off-taste/flavor
(2) Water (%)	-	Not more than 5.0 (only applicable to powder products)
(3) Acidity (%)	Not more than 0.20 (as lactic acid)	-
(4) Milk fat (%)	Not less than 30.0	Not less than 18.0 (for powder products, not less than 50.0)
(5) Bacterial count	n=5, c=2, m=10,000, M=50,000	n=5, c=2, m=10,000, M=50,000

		(for sterilized products, n=5, c=0, m=0, when tested according to the general bacterial counting method after being stored for 1 week at 55°C or for 2 weeks at 30°C.)
(5) Coliforms	n=5, c=2, m=<3, M=10	n=5, c=2, m=<3, M=10 (sterilized products are excluded)
(6) <i>Salmonella</i> spp.	n=5, c=0, m=0/25 g	
(7) <i>Listeria monocytogenes</i>	n=5, c=0, m=0/25 g	
(8) <i>Staphylococcus aureus</i>	n=5, c=0, m=0/25 g	