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الحليب المبخر
Evaporated milk

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هذه الوثيقة مشروع لمواصفة قياسية خليجية تم توزيعها لإبداء الرأي والملاحظات بشأنها ، لذلك فإنها عرضة للتغير والتبديل ، ولا يجوز الرجوع إليها كمواصفة قياسية خليجية إلا بعد اعتمادها من مجلس إدارة الهيئة.

Foreword

GCC Standardization Organization (GSO) is a regional Organization which consists of the National Standards Bodies of GCC member States. One of GSO main functions is to issue Gulf Standards /Technical regulations through specialized technical committees (TCs).

GSO through the technical program of committee TC No (5) " Technical committee for standards of food and agriculture products " has update the GSO Technical regulation No. : GSO 2296/2013 "Evaporated Milk" The Draft Technical regulation has been prepared by Republic of Yemen.

This Technical regulation has been approved by GSO Board of Directors in its meeting No.(), held on / / h(/ /).

Evaporated milk

1 Scope

This Gulf Standard is concerned with evaporated milk, intended for direct human consumption or further processing.

2 Complementary Standards

- 2.1 GSO 9" Labeling of prepackaged food stuffs".
- 2.2 GSO 20" Methods for the determination of contaminating metallic elements in food stuffs".
- 2.3 GSO 21" Hygienic regulations for food plants and their personnel" .
- 2.4 GSO 22" Methods of test for coloring matters used in food stuffs".
- 2.5 GSO 150" Expiration periods of food products" .
- 2.6 GSO 168" Conditions of stores facilities for dry and canned food stuffs".
- 2.7 GSO 383, 383" Maximum limits for pesticide residues in agricultural and food products- Parts 1, 2".
- 2.8 GSO 569" Methods of sampling for milk and milk products" .
- 2.9 GSO 570" Methods for physical and chemical test for milk".
- 2.10 GSO 571" Methods of microbiological test for treated liquid milk" .
- 2.11 GSO 839" Food packages- Part 1: General requirements".
- 2.12 GSO 841" Maximum limits for mycotoxins permitted in food and animal feeds- Aflatoxins".
- 2.13 GSO 988" Limits of radioactivity levels permitted in food stuffs- Part1".
- 2.14 GSO 998" Methods for the detection of permissible radionuclide limits in food stuffs- Part 1: Gamma spectrometry analysis A, Cs 134, Cs 137."
- 2.15 GSO 1016" Microbiological criteria for food stuffs".
- 2.16 GSO 1694" General rules for food hygiene".
- 2.17 GSO/CAC 192" General Standard for food additives".
- 2.18 GSO/CAC 193" General Standard for contaminants and toxins in food and feed"
- 2.19 GSO/CAC 229" Analysis of pesticide residues: Recommended methods".
- 2.20 GSO/CAC/RCP 57" Code of hygienic practice for milk and milk products".
- 2.21 GSO ٢٤٨٨"Maximum residue limits (MRLs) of veterinary drugs in food".
- 2.22 GSO 1302 "Methods for microbiological examination of sweetened condensed milk and evaporated milk".
- 2.23 GSO 1301 "Methods of chemical analysis for sweetened condensed milk and concentrated (evaporated) milk".

3 Definitions

3.1 Evaporated milk:

Is a product which can be obtained by the partial removal of water from milk by heat, or any other process which leads to a product of the same composition and characteristics. The fat and /or protein content of the milk may have been adjusted, by the addition and/ or withdrawal of milk constituents in such a way as not to alter the whey protein to casein ratio of the milk being adjusted.

3.2 Milk retentate:

Is a product obtained by concentrating milk protein by ultrafiltration of milk, partly skimmed milk, or skimmed milk.

3.3 Milk permeates:

Is a product obtained by removing milk proteins and milk fat from milk, partly skimmed milk, or skimmed milk by ultrafiltration.

4 Requirements

The following shall be met in the product:

4.1 Raw materials

4.1.1 All raw materials shall be complying with Gulf Standards specific to each.

4.1.2 The following milk products are allowed for protein adjustment purposes:

- Milk retentat
- Milk permeate
- Lactose

4.2 The production shall be carried out according Gulf Standards stated in Items (2.3, 2.16 and 2.20).

4.3 The product shall be free from big products and its derivatives and all the contradicts Islamic law.

4.4 The product shall be manufactured from the following milk products: milk, milk powder and cream, cream powder and milk fat products.

4.5 The composition of evaporated milk shall be according to Table (1):

Table (1)
Composition of evaporated
milk

| | Evaporated milk | Evaporated skimmed milk | Evaporated partly skimmed milk | Evaporated high- fat milk |
|------------------|------------------------|-------------------------|-------------------------------------------|---------------------------|
| Milk fat content | 7.5 % m/m (Minimum) | 1 % m/m (Maximum) | More than 1% and less than 7.5% m/m | 15 % m/m (Minimum) |
| Minimum milk | 25 % m/m | 20 % m/m | 20 % m/m | 11.5 % m/m |

| | | | | |
|------------------------------------------------------|---------|---------|---------|---------|
| solids content* | | | | |
| Minimum milk protein in milk solids-not-fat content* | 34% m/m | 34% m/m | 34% m/m | 34% m/m |

*The milk solids and milk solids- not- fat content include water of crystallization of the lactose.

- 4.6 Acidity content of the product shall not exceed 0.4% calculated as lactic acid.
- 4.7 The following permissible to add:
- 4.7.1 Potable water, Sodium chloride.
- 4.7.2 Without prejudice to what mentioned in Gulf Standard stated in Item (2.17), only those food additives listed in Table (2), may be used within the limits specified against each:

Table (2) Allowed food additives

| INS no. | Purpose | Permitted food additive | Maximum level |
|-------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 508 509 | Firming agents | Potassium chloride Calcium chloride | 2000 ppm singly or 3000 ppm in combination, expressed as anhydrous substances |
| 331 332 333 | Stabilizers | Sodium citrates Potassium citrates Calcium citrates | 2000 ppm singly or 3000 ppm in combination, expressed as anhydrous substances |
| 170 339 340 341 450 451 452 500 501 | Acidity regulators | Calcium carbonate Sodium phosphate Potassium phosphate Calcium phosphate Diphosphates Triphosphates Polyphosphate Sodium carbonate Potassium carbonate | 2000 ppm singly or 3000 ppm in combination, expressed as anhydrous substances |
| 407 | Thickener | Carrageenan | 150 ppm |
| 322 | Emulsifier | Lecithins | Limited by GMP |

- 4.8 The products covered by this Standard and the milk used in the manufacture of the products shall comply with the maximum levels for contaminants and toxins specified for milk by the Gulf Standard stated in Item (2.18).
- 4.9 Aflatoxins content in the product shall not exceed to what mentioned in Gulf Standard stated in Item (2.12).
- 4.10 Pesticide residues content in the product shall not exceed to what mentioned in Gulf Standard stated in Item (2.7).

- 4.11 veterinary drugs residues in the product shall not exceed to what mentioned in Gulf Standard stated in Item (2.21).
- 4.12 Microbiological criteria in the product shall not exceed to what mentioned in Gulf Standard stated in Item (2.15).
- 4.13 Contaminants radioactivity level for the product shall not exceed to what mentioned in Gulf Standard stated in Item (2.13).

5 Sampling

Samples shall be taken according to Gulf Standard stated in Item (2. 8).

6 Methods of examination and test

All necessary tests stated in Gulf Standards mentioned in Items (2.2, 2.4, 2.9, 2.10, 2.14, 2.19, 2.22, 2.23) shall be carried out on the representative sample taken according to Item (5), to determine the compliance of the product for the requirements of this Standard.

7 Packaging, transportation and storage

7.1 Packaging:

Without prejudice to what mentioned in Gulf Standard stated in Item (2.11), the product shall be packed automatically, to ensure not contamination, and in clean and sterilized containers not lead to alter product properties.

7.2 Transportation:

7.2.1 Means of transportation shall be approved from control authorities and not previously used in transportation any toxic or harmful substances.

7.2.2 Sterilized and automatic well sealed products shall be transport at temperature not exceed 30°C.

7.2.3 Unsterilized products shall be transport at temperature ranged from 0-5°C.

7.3 Storage:

Used stores shall be well ventilated and far from heat and contamination sources, and shall be comply with Gulf Standard stated in Item (2.6).

8 Labeling

Without prejudice to what mentioned in Gulf Standards stated in Items (2.1, 2.5), the following shall be declared on the label of containers:

8.1 Product name: according to the composition specified in Item (4.5).

8.2 Evaporated partly skimmed milk may be designated "evaporated semi-skimmed milk" if the milk fat content ranged between 4.0- 4.5 %and the minimum milk solids is 24% m/m.

8.3 Milk fat content: If the consumer would be misled by the omission, the milk fat content shall be declared in a manner found acceptable in the country of sale to the final consumer, either (i) as a percentage by mass or volume, or (ii) in grams per serving as quantified in the label provided that the number of servings is stated.

8.4 Milk protein content: If the consumer would be misled by the omission, the milk

protein content shall be declared in a manner acceptable in the country of sale to the final consumer, either as (i) a percentage by mass or volume, or (ii) grams per serving as quantified in the label provided that the number of servings is stated.

- 8.5 In the case of process the product from reconstituted milk, the name of the product shall be follow with clear write and with the same size for the letters used in writing the name of the product, with the statement "processed from dried milk" or others, according to the kind of milk used.
- 8.6 Kind of animal from which the milk produced.
- 8.7 Storage instructions.

References

- 1- Codex Alimentarius Commission
CAC 281/1971
Revision 201[^]
Evaporated milk
- 2- Saudi Arabian Org. For Standards and Quality
Saudi Standard
SSA 261/2001
Evaporated mil