

هيئة التقييس لدول مجلس التعاون لدول الخليج العربية

*STANDARDIZATION ORGANIZATION FOR G.C.C (GSO)*

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**Fruits and vegetables and their products-**

**Canned spinach**

**Prepared by:**

Gulf technical committee for sector standards of

Food and agriculture products

This document is a draft Gulf standard circulated for comments, it is therefore, subject to alteration and modification, and may not be referred as a Gulf standard, until approved by the Board of Directors

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## 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) "Gulf technical committee for sector Standards of Foods and Agricultural products" has prepared the Gulf Standard for " Fruits and vegetables and their products- Canned spinach " . The draft Standard has been prepared by State of Qatar.

This Standard has been approved as a Gulf Technical Regulation by GSO Board of Directors in its meeting No. ( ), held on / / H, / / G.

## **Fruits and vegetables and their products-**

### **Canned spinach**

#### **1-Scope:**

This Gulf Standard is concerned with the requirements of canned spinach.

#### **2-Complementary references:**

- 2.1 GSO 9" Labelling 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 123" General requirements for fresh fruits and vegetables" .
- 2.5 GSO 150" Expiration periods of food products" .
- 2.6 GSO 168" Conditions of storage facilities for dry and packed food stuffs".
- 2.7 GSO 177" Methods of physical and chemical tests of canned vegetables" .
- 2.8 GSO 178 Microbiological methods for testing of canned vegetables" .
- 2.9 GSO 244" Methods of test for vegetables and fruits and their products- Part 1: Organoleptic examination, determination of net weight and drained weight, determination of apparent viscosity, determination of head-space, determination of extraneous matter and defective fruits".
- 2.10 GSO 382, 383" Maximum limits for pesticide residues in agricultural and food products- Parts 1, 2" .
- 2.11 GSO 839" Food packages- Part 1: General requirements".
- 2.12 GSO 841" Maximum limits of fungi toxins permitted in food and animal feeds- Aflatoxin".
- 2.13 GSO 988" Limits of radioactivity levels permitted in food stuffs- Part 1".
- 2.14 GSO 998" Methods for the detection of permissible radionuclide in food- Part 1: Gamma spectrometry analysis: A, Cs 134, Cs 137".
- 2.15 GSO 1016" Microbiological criteria for food stuffs- Part 1".
- 2.16 GSO 1287" Methods of sampling of prepackaged fruit and vegetable products" .
- 2.17 GSO 1791" Three piece steel round cans used for canning food stuffs".
- 2.18 GSO/CAC 193: General Standard for contaminants and toxins in food and feed".
- 2.19 Gulf Standards which Organization shall be approved concerned with:
  - 2.19.1" General Standard for food additives" .

2.19.2 Methods for the determination of fungi toxins in food and animal feeds" .

2.19.3 Methods for the determination of pesticide residues" .

### **3- Definitions:**

#### **Canned spinach:**

A food product prepared from spinach leaves and stalks of Variety *Spinacia oleracea* L. fresh, tender which reached appropriate maturity stage and free from fungi, insects and diseases damage, after washing, cutting, boiling and packed in water or any suitable solution, and thermal treated with a suitable way before or after closing to prevent spoilage of the product and to keep its main component and its quality factors.

### **4- Requirements:**

The following requirements shall be met in the product:

4.1 The spinach used in the production shall be complying with what mentioned in Gulf Standard stated in Item (2.4).

4.2 The production shall be carried out according to the requirements mentioned in Gulf Standard stated in Item (2.3).

4.3 Using leaves and stalks of spinach shall be tender and with bright green color.

4.4 Using leaves and stalks of spinach shall be homogenized in color and free from other plants leaves.

4.5 The product shall have distinguishing odor and flavor for the variety, and free from foreign taste and odor.

4.6 Packaging liquid shall have its physical characteristics.

4.7 It is allow to add chick-peas and some spices in the case of packaging the spinach in sauce solution, to improve thr texture and taste.

4.8The allowable defects from yellow leaves and over ripe stalks shall not exceed 2%.

4.9 Edible salt content shall not exceed 2% from the net weight.

4.10 The additives shall be according to Gulf Standard stated in Item (2.19.1).

4.11 Contaminating metallic elements content shall not exceed to what mentioned in Gulf Standard stated in Item (2.18).

4.12 Pesticide residues in the product shall not exceed the allowable limits according to Gulf Standard stated in Item (2.10).

4.13 Microbiological criteria of the product shall comply with Gulf Standard stated in Item (2.15).

4.14 The radioactivity contaminant limits for the product shall comply with Gulf Standard stated in Item (2.13).

4.15 Maximum limits of fungi toxins shall not exceed to what mentioned in Gulf Standard stated in Item (2.12).

#### **5- Sampling:**

Samples shall be taken according to Gulf Standard stated in Item (2.16).

#### **6- Methods of examination and test:**

**6.1** Determination of contaminating metallic elements shall be carried out according to Gulf Standard stated in Item (2.2).

**6.2** Physical and chemical examination shall be carried out according to Gulf Standard stated in Item (2.7).

**6.3** Determination of net weight, drained weight and defects shall be carried out according to Gulf Standard stated in Item (2.9).

6.4 Determination of aflatoxins shall be carried out according to Gulf Standard stated in Item (2.19.2).

6.5 Determination of pesticides residues shall be carried out according to Gulf Standard stated in Item (2.19.3).

6.6 Detection of radioactivity limits shall be carried out according to Gulf Standard stated in Item (2.14).

6.7 The product shall be microbiological tested according to Gulf Standard stated in Item (2.8).

#### **7- Packaging, transportation and storage:**

##### **7.1 Packaging:**

7.1.1 Without prejudice to what mentioned in Gulf Standards stated in Items (2.11, 2.17), the product shall be packaged in suitable containers to keep the it and protect it from any contamination lead to change its properties or its fitting for human consumption.

7.1.2 The cans shall be coated from inside with varnish material suitable with medium or solution packaging.

7.1.3 The vacuum inside the cans shall not be less than 100 mm mercury.

7.1.4 Volume content shall not be less than 90% from water capacity of the container.

7.1.5 The drained weight shall not be less than 60% of the product net weight.

### **7.2 Transportation:**

Product transportation shall be carried out by means of sound and clean means, do not previously used in transportation of any poisoning or harmful materials, and the transportation shall be carried out with a way do not lead to spoilage of the product.

### **7.3 Storage:**

Without prejudice to what mentioned in Gulf Standards stated in Items (2.6), the stores shall be good ventilation and far from heat and contamination sources.

### **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, in Arabic language and may write in another language beside the Arabic language:

8.1 The name of the product (canned spinach) .

8.2 Conditions of keeping, storage and handling.

8.3 Net weight and drained weight.

