

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

نهائي :مشروع

**GSO 5/FDS..... /2008**

**الكستناء (أبو فروة) المعلبة  
CANNED CHESTNUTS**

إعداد

الغذائية والزراعية اللجنة الفنية الخليجية لقطاع مواصفات المنتجات

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

## Foreword

Standardization Organization for GCC (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 regulation through specialized technical committees (TCs).

GSO through the technical program of committee TC No 5 " The Gulf Technical Committee for Food and Agricultural Standards Products" has prepared this Standard . The Draft Standard has been prepared by  
**(KINGDOM OF SAUDI ARABIA )**

The draft Standard has been prepared based on relevant ADMO, International and National foreign Standards and references.

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

## **CANNED CHESTNUTS**

**Date of GSO Board of Directors' Approval**       :  
**Issuing Status**   :

## CANNED CHESTNUTS

### 1- SCOPE AND FIELD OF APPLICATION

This standard applies to canned products prepared from chestnut fruits, as defined in Section 3.1, intended for direct human consumption. The fruits are shelled, styled and canned alone or with packing media.

### 2- COMPLEMENTARY REFERENCES

- 2.1 GSO 9 “Labelling of Prepackaged Foods”.
- 2.2 GSO 21 “Hygienic Regulations for Food Plants and Their Personnel”.
- 2.3 GSO 23 “Colouring Matter Used in Foodstuffs”.
- 2.4 GSO 168 “Conditions of Storage Facilities for Dry and Canned Foodstuffs”.
- 2.5 GSO 178 “Microbiological Methods for Testing Canned Vegetables”.
- 2.6 GSO 177 “Methods of Physical and Chemical Test of Canned Vegetables”.
- 2.7 GSO 244 “Methods of Tests for Vegetables, 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”.
- 2.8 GSO 260 “Methods of Tests for Fruits, Vegetables and Their Products - Part 3: Determination of Specific Gravity - Pectin - Pentosans - Sorbitol - Sucrose”.
- 2.9 GSO 356 “Preservatives Permitted for Use in Food Products”.
- 2.10 GSO 357 “Antioxidants Permitted for Use in Food Products”.
- 2.11 GSO 381 “Emulsifiers, Stabilizers and Thickeners Permitted for Use in Foodstuffs”.
- 2.12 GSO 382 “Maximum Limits for Pesticide Residues in Agricultural Food Products - Part 1”.
- 2.19 GSO 383 “Maximum Limits for Pesticide Residues in Agricultural and Food Products - Part 2”.
- 2.202.14 GSO 707 “Flavourings Permitted for Use in Foodstuffs”.
- 2.15 GSO 839 “Food Packages - Part 1: General Requirements”.
- 2.16 GSO 841 “Maximum Limits of Omycotoxins Permitted in Foods and Animal Feeds - Aflatoxins”.
- 2.19 GSO 988 “Limits of Radiation Levels Permitted in Foodstuffs - Part 1”.
- 2.20 GSO 1016 “Permissible Microbiological Criteria for Foodstuffs - Part 1”.

- 2.21 GSO 1287 “Methods of Sampling of Prepackaged Fruit and Vegetable Products”.
- 2.22 GSO ... “ Hermetically sealed roud tin cans used in preservation of foodstuffs .

### **3- DEFINITIONS**

- 3.1 Chestnut fruits  
Fresh, sound, and mature chestnut fruits of varieties conforming to the characteristics of the species *Castanea Crenata* Sieb et Zucc (Japanese chestnut) or *Castanea Sativa* Miller (European chestnut).
- 3.2 Canned chestnuts  
Product prepared from chestnut fruits which are shelled and may be pellicled or upellicled. It may be packed with or without water which may or may not contain sugars, seasonings and other ingredients. It is processed inside the container by heat before or after removing the air and sealing the container so as to prevent spoilage.
- 3.3 Canned chestnut puree  
Product prepared from chestnut fruits which are shelled, pellicled, and pureed by sieving, or other mechanical means. It is packed with or without sugars and other ingredients, and processed by heat as defined in 3.2.
- 3.4 Common fruit defects  
They include discolored units, blemished units, split and broken units (in whole styles), and harmless plant material such as shell and pellicle (in pellicled styles).

### **4- STYLES**

The product may be presented in one of the following styles:

- 4.1 Whole.
- 4.2 Broken.
- 4.3 Sweetened puree.
- 4.4 Unsweetened puree.
- 4.5 Unpellicled.

## 5- CLASSIFICATION OF PACKING MEDIA

Packing media surrounding chestnuts when added to the container in accordance with the concentration (Brix) of its contents of added nutritive sweeteners shall be classified as follows:

- 5.1 Extra light syrup: From 10° to less than 14°.
- 5.2 Light syrup: From 14° to less than 18°.
- 5.3 Heavy syrup: From 18° to less than 22°.
- 5.4 Extra heavy syrup: 22° or more.

## 6- REQUIREMENTS

The following requirements shall be met in canned chestnuts:

- 6.1 It shall be clean, safe and fit for human consumption. The product shall be free from objectionable matter such as sand, stones, dust, straw and insect, rodent and bird residues to the extent possible in good manufacturing practice.
- 6.2 It shall be free from harmful or toxic substances.
- 6.3 It shall be free from abnormal taste and odours.
- 6.4 It shall be prepared from crude materials that meet the relevant Saudi standards.
- 6.5 Contaminant minerals (p.p.m.) shall not exceed the following: Lead 1, Tin 250.
- 6.6 Added salt shall not exceed 1% by mass of total net contents.
- 6.7 Fruits shall be fresh, mature and sound. Also, they shall be free from wounds, fermented or hydrolized parts, and fungal or insect infections..
- 6.8 It may be packed with or without water which may or may not contain added nutritive sweeteners such as sucrose, invert sugar syrup, dextrose, dried glucose syrup, glucose syrup, fructose, fructose syrup and honey.
- 6.9 The drained weight of the product shall be not less than 55% by mass of the weight of distilled water at 20°C which will fill a container with a capacity of less than 300 ml of water, and not less than 60% by mass of the weight of distilled water at 20°C which will fill a container with a capacity of 300 ml or more of water.
- 6.10 Sugars in canned chestnut puree shall amount to not more than 2% by mass of total net contents.
- 6.11 Total soluble solids in unsweetened canned chestnut puree shall be not less than 10% by mass, and not less than 12% by mass in the sweetened canned chestnut puree.
- 6.12 Canned chestnut puree shall not contain preservatives.
- 6.13 The expiry date shall be no more than one year.

- 6.14 It shall be processed according to the Gulf standard mentioned in 2.1.
- 6.15 Subject to the provisions of the Gulf standards mentioned in 2.3, 2.9, 2.10, 2.11 and 2.14 the product may contain the following food additives:
- 6.15.1 Acidity regulators.
  - 6.15.2 Antioxidants.
  - 6.15.3 Artificial colours (carthamus yellow, crocin).
  - 6.15.4 Artificial flavors (vanilla extract, vanillin).
  - 6.15.5 Preservatives (not in canned chesnut puree).
  - 6.15.6 Food stabilizers.
  - 6.15.7 Food thickeners.
- 6.16 It shall not exceed the limits of pesticide residues prescribed in the Gulf standards mentioned in 2.12 and 2.13.
- 6.17 It shall not exceed the limits of fungal toxins (Aflatoxins) prescribed in the Gulf standard mentioned in 2.16.
- 6.18 It shall not exceed the limits of radiation prescribed in the Gulf standard mentioned in 2.17.
- 6.19 It shall not exceed the microbiological limits prescribed in the Gulf standard mentioned in 2.18.
- 6.20 Certain common defects mentioned in 3.4 shall not be present in amounts greater than 14% by mass of the net drained weight of canned chestnuts.
- 6.21 It shall not contain artificial sweeteners such as Saccharine or Aspartame.
- 6.22 It shall be of the same style and packing media as prescribed in 4 and 5 respectively.
- 6.23 Chestnuts which are not whole shall not be present in amounts greater than 20% by mass of the net drained weight of canned chestnuts for the style "whole".
- 6.24 The metallic cans shall be free from rust, corrosion, perforations, leakage, swelling or over-filling.

## **7- SAMPLING**

Samples shall be taken as prescribed in the Gulf standard mentioned in 2.17.

## **8- METHODS OF TEST**

Samples taken in accordance with item 7 are tested according to tests prescribed in the Gulf standards mentioned in 2.5, 2.6, 2.7 and 2.8.

**9- PACKAGING**

Subject to the provisions of the Gulf standard mentioned in 2.20 chestnuts shall be packed in suitable coated-tin cans which will safeguard the hygienic and nutritional qualities of the product, and which will not impart any toxic substance or undesirable odour or taste to the product. Glass containers may be used but they shall be tightly sealed and treated with suitable heat treatment.

**10- TRANSPORTATION AND STORAGE**

Subject to the provisions of the Gulf standard mentioned in 2.14 canned chestnuts shall be transported and stored in such a suitable way as to safeguard the hygienic and nutritional qualities of the product. Cans are kept in ventilated stores at normal room temperature and moderate humidity.

**11- LABELLING**

Subject to the provisions of the Gulf standard mentioned in 2.1 the following information shall be declared on the package:

- 11.1 Name of the product shall be "Chestnuts" or "Chestnut Puree".
- 11.2 Style is in accordance with item 4.
- 11.3 Packing medium is in accordance with item 5.
- 11.4 Ingredients and food additives.
- 11.5 Production and expiration dates "month-year".



**REFERENCES**

**Main Reference**

Codex Alimentarius Abridged 1989. Division 4: Processed Fruits and Vegetables: Canned Chestnuts and Canned Chestnut Puree Standard.