

هيئة التقييس لدول مجلس التعاون لدول الخليج العربية  
GCC STANDARDIZATION ORGANIZATION ( GSO)

final draft

GSO 5/FDS 000 /2015

Cinnamon : Sri Lankan type, Seychelles type and  
Madagascan type (Cinnamomum zeylanicum Blume) -  
Specification

Prepared by :

Gulf technical committee for standards of food and agriculture products

This document is a draft Gulf standard circulated for comments, it is therefore, subject to change, and may not be referred to it as a Gulf standard, until approved by the board of directors

## Foreword

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

GSO through the technical program of committee TC NO.5 " Gulf technical committee for standards of food and agriculture products " has update the GSO/ISO 6539:2007" Cinnamon : Sri Lankan type, Seychelles type and Madagascan type (*Cinnamomum zeylanicum* Blume) - Specification: - " The Draft Standard has been prepared by ( State of Qatar).

This standard has been approved as Gulf Technical regulation by GSO Board of Directors in its meeting No...../.....held on     /     /     H, /     / and canceled this standard and replace them .

## Scope

This **Gulf Standard specifies requirements for whole or ground (powdered) cinnamon**, of the Sri Lankan, Madagascan and Seychelles types; this cinnamon is the bark of the tree or shrub *Cinnamomum zeylanicum* Blume.<sup>1</sup>

**Recommendations relating to storage and transport conditions are given in Annex A.**

NOTE Requirements for cassia (Chinese type, Indonesian type and Vietnamese type) are given in GSO/ISO 6538 .

### 2. Complementary Standards :

2.1 GSO 9 " Labeling of prepackaged foodstuffs " .

2.2 GSO 21 " "Hygienic regulation for food plants and their personnel " .

2.3 GSO 22 " METHODS OF TEST FOR COLOURING MATTER USED IN FOODSTUFFS " .

2.4 GSO 150 " Expiration dates for food products - Part 2 : Voluntary expiration dates " .

2.5 GSO 382 " Maximum limits for pesticide residues in agricultural food products - Part 1 " .

2.6 GSO 383 " Maximum limits for pesticide residues in agricultural food products part 2. " .

2.7 GSO 841 " MAXIMUM LIMITS OF MYCOTOXINS PERMITTED IN FOODS AND ANIMAL FEEDS - AFLATOXINS " .

**2.8 GSO /ISO 927 " Spices and condiment- determination of filth " .**

2.9 GSO/ISO 928 " Spices and condiments – Determination of total ash " .

2.10 GSO/ISO 930 " Spices and condiments – Determination of acid insoluble ash " .

**2.11 GSO/ISO 939 " Spices and condiments - Determination of moisture content - Entrainment method " .**

2.12 GSO/ISO 948 " Spices and condiments – sampling " .

2.13 GSO 988 " Limits of radionativity levels permitted in foods stuff part - 1. " .

2.14 GSO 1016 " MICROBIOLOGICAL CRITERIA FOR FOODSTUFFS – PART1 " .

2.15 GSO 1323 " Cereals and pulses- Determination of Hidden Insect Infestation- Part3: Reference Method. " .

2.17 GSO/ISO 1208 " Spices and condiments - Determination of filth.

2.18 GSO/ISO 2825" Spices and condiment- preparation of a ground sample for analysis" .

2.19 GSO/ISO 6571 <sup>1</sup> " Spicesandherbs– Determination content of oil volatile" .

### 3. Definitions :

3.1 cinnamon quill full tube : scraped peel of the inner bark of mature plantation cinnamon shoots joined together by overlaps, the hollow of which has been filled with small pieces of the same peel and thereafter dried in the sun after air curing .

3.2 cinnamon quillingbroken tube : broken piece and split of varying sizes of all grades of cinnamon quills

#### **3.3cinnamon feathering**

piece of inner bark, obtained by peeling and/or scraping the bark of small twigs and stalks of plantation cinnamon shoots, which may include a quantity of chips as specified

#### **3.4cinnamon chip**

dried unpeelable bark of plantation cinnamon, inclusive of the outer bark, which has been obtained by beating or scraping the shoots .

#### **3.5ground cinnamon**

powder obtained by grinding cinnamon of the types considered in this International Standard, excluding all additives .

#### **3.6whole cinnamon**

all commercial forms of cinnamon except cinnamon powder

#### **3.7foxing**

occurrence of reddish-brown patches on the surface of the quills, which may become dark brown with time

#### **3.8bale**

package of any one particular grade of quills wrapped in a suitable material for export purposes

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<sup>1</sup>.Gulf standard will be adopted later .

## 4. Types and classification :

### 4.1 Types

#### 4.1.1 Sri Lankan type cinnamon

This is the dried bark of cultivated varieties of the species *Cinnamomum zeylanicum* Blume of the Lauraceae family.

Sri Lankan type cinnamon is produced in **four** forms:

- a) quills (see 3.1);
- b) quillings (see 3.2);
- c) featherings (see 3.3);
- d) chips (see 3.4).

#### 4.1.2 Seychelles type cinnamon

This is the bark of trunks or branches of *Cinnamomum zeylanicum* Blume, cultivated on the Seychelles. Seychelles type cinnamon is produced in three forms:

- 4.1.2.1 rough cinnamon bark, which consists of slightly curved, elongated, irregular, medium or small pieces of the whole unscraped bark.
- 4.1.2.2 scraped cinnamon bark, which is obtained from younger shoots from bushes of the same species; the shoots are scraped with a curved knife before the bark is detached from the wood.
- 4.1.2.3 quills and quillings, which are prepared from the young shoots, of bushes in a way similar to that used for **Sri Lankan type** cinnamon.

#### 4.1.3 Madagascan type cinnamon

This is the bark of trunks or branches of *Cinnamomum zeylanicum* Blume, which grows wild on Madagascar. It is produced either

- 4.1.3.1 simple, hollow tubes of unscraped or scraped bark, of rather coarse appearance, about 30 cm long, cut from smaller branches with a knife, or more usually
- 4.1.3.2 unscraped or scraped pieces of bark from the larger branches and trunks, broken off with the flat side of a hatchet.

## **4.2 Commercial grades**

### **4.2.1 Sri Lankan type cinnamon**

**4.2.1.1 Quills** For classification, see Table 1.

4.2.1.2 Quillings may contain up to 3 % (mass fraction) of featherings and chips.

**4.2.1.3 Featherings:** Featherings may contain up to 5 % (mass fraction) of chips.

**4.2.1.4 Chips :** Chips shall consist of well dried and unpeelable cinnamon bark.

### **4.2.2 Seychelles type and Madagascan type cinnamon**

For classification, see Table 2.

## 5. Ground cinnamon

Ground cinnamon shall consist solely of the types of cinnamon listed in Clause 4.

If there is a designation of origin, the ground cinnamon should be prepared exclusively from the barks concerned.

**Table 1 — Classification for quills for Sri Lankan type cinnamon**

Commercial designation of grades and qualities	Diameter of quills	Number of whole quills (1 050 mm) per kg	Extent of foxing <sup>a</sup>	Minimum length of quills in a bale	Pieces of tube and broken pieces of the same quality per bale
	max.	min.	max. <sup>b</sup>		max.
	mm		%	mm	% (mass fraction)
Alba	6	45	Nil	200	1
Continental					
C 00000 special	6	35	10	200	1
C 00000	10	31	10		
C 0000	13	24	10		
C 000	16	22	15		
C 00	17	20	20		
C 0	19	18	25		
Mexican					
M 00000 special	16	22	50	200	2
M 00000	16	22	60		
M 0000	19	18	60		
Hamburg					
H 1	23	11	25	150	3
H 2	25	9	40		
H 3	38	7	65		
<sup>a</sup> Foxing can be: a) superficial (“malkorahedi”), or b) heavy (“korahedi”). This subdivision is based on the depth of the patches. <sup>b</sup> The extent is determined by visual examination.					

**Table 2 — Classification of Seychelles type and Madagascan type cinnamon**

Commercial designation of the grade	Physical characteristics of the bark
1 Whole tubes (full tubes)	Tubes of length about 15 cm and bark thickness up to 1 mm
2 Pieces of scraped bark	Broken pieces, rough and grooved scraped bark of thickness up to 2 mm
3 Pieces of unscraped bark	Broken pieces, rough and grooved, of width up to about 3 cm and length up to 20 cm. The bark can be up to 5 mm thick
4 Chips, flakes of unscraped bark	Small pieces of unscraped bark of cinnamon stems

## 6. Requirements

### 6.1 Odour and flavour

The odour and flavour shall be fresh and characteristic of cinnamon of the origin concerned. It shall be free from foreign flavours, including mustiness.

### 6.2 Colour

Ground cinnamon shall be yellowish to reddish-brown in colour.

### 3. Freedom from moulds, insects, etc.

Whole cinnamon shall be free from live insects, mould growth, mites and insect remains, for example cocoons, and shall be practically free from dead insects, insect fragments and rodent contamination visible to the naked eye (corrected, if necessary, for abnormal vision), with such magnification as may be necessary in any particular case. If the magnification exceeds  $\times 10$ , this fact shall be stated in the test report.

In case of dispute, contamination in ground cinnamon shall be determined by the method described in item 2.16.

### 6.4 Extraneous matter

Extraneous matter includes leaves, stems, chaff and other vegetable matter together with sand, earth and dust.

The proportion of extraneous matter in whole cinnamon shall not exceed 1 % (mass fraction) when determined by the method described in item 2.11

### 6.5 Chemical requirements

Whole cinnamon and ground cinnamon shall comply with the requirements given in Table 3.



## 7. Sampling

Sampling shall be carried out as specified in item 2.12

## 8. Test methods

**8.1** The samples shall be analysed to ensure conformity with the requirements of this Gulf Standards by the methods of physical and chemical analysis as specified in 2.3, 2.9, 2.10, 2.11, 2.14, 2.16, 2.17, 2.18, 2.19 and in Table 3.

**Table 3 — Chemical requirements**

Characteristic	Requirements by cinnamon type		Test method
	Sri Lankan type	Seychelles and Madagascan type	
Moisture content, % (mass fraction), max.			GSO 2.19
— whole cinnamon	14	15	
— ground cinnamon	12	14	
Total ash, % (mass fraction), on dry basis, max.	5	7	GSO 2.9
Acid-insoluble ash, % (mass fraction), on dry basis, max.	1	2	GSO 2.10
Volatile oils, ml/100 g, on dry basis, min.			GSO 2.17
— whole cinnamon	1,0	0,7	
— ground cinnamon	0,7	0,3	

8.2 For the preparation of a ground sample for analysis, coarsely crush the product until particles of 5 mm or less are obtained, before applying the general method described in GSO in item (2.18).

## 9. Packaging and marking

### 9.1 Packaging

Whole cinnamon shall be packed in clean, sound and dry containers made of a material which does not affect the product but which protects it from the ingress of moisture and loss of volatile matter.

The packaging shall also comply with any national legislation relating to environmental protection.

## 10. Marking

Without prejudice to the provisions of the GSO standards mentioned in items

(2.1, 2.4) should include explanatory statements as follows:

10.1 name of the product.

10.2 trade name or brand name, if any.

10.3 name and address of the manufacturer or packer.

10.4 batch or code number.

10.5 net mass.

10.6 grade of the material.

10.7 producing country.

10.8 any other marking required by the purchaser, such as year of harvest and date of packing.

## 11. Storage and transport

11.1 Packaging must be improved way to keep them away from odors and rain, sunlight or any other source of high temperature, in addition to the preservation of contamination and mechanical damage.

11.2 The product should be stored in free of odors and insects away from sources of dry stores and protect the product from the sun and rain rays and sources of high heat. You should ventilation, humidity and pollution control factors.

## Annex A

### **(informative)**

#### Recommendations relating to storage and transport conditions

**A.1** The containers of cinnamon should be stored in covered premises, well protected from the sun, rain and excessive heat.

**A.2** The store room should be dry, free from objectionable odours and proofed against entry of insects and vermin. The ventilation should be controlled so as to give good ventilation under dry conditions and to be fully closed under damp conditions. In a storage warehouse, suitable facilities should be available for fumigation.

**A.3** The containers should be so handled and transported that they are protected from the rain, from the sun or other source of excessive heat, from objectionable odours and from cross-infestation, especially in the holds of ships.