BỘ KHOA HỌC VÀ CÔNG NGHỆ TỔNG CỰC TIÊU CHUẨN ĐO LƯỜNG CHẤT LƯỢNG

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM Độc lập - Tự do - Hạnh phúc

Số: /TĐC-TBT V/v cảnh báo đối với dự thảo quy chuẩn kỹ thuật của các Tiểu vương quốc Ả rập Thống nhất (UAE) đối với hạt cà phê rang

Hà Nội, ngày tháng năm 2024

Kính gửi:

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- Tổng công ty Cà phê Việt Nam (Vinacafe);
- Công ty Cổ phần Tập đoàn Intimex;
- Liên đoàn Thương mại và Công nghiệp Việt Nam (VCCI).

Nhằm thực hiện cảnh báo sớm cho Hiệp hội, doanh nghiệp và các cơ quan quản lý có liên quan về các biện pháp kỹ thuật dự kiến sẽ áp dụng của các nước Thành viên WTO đối với các sản phẩm xuất khẩu của Việt Nam, Tổng cục Tiêu chuẩn đo lường Chất lượng (TCĐLCL) xin gửi thông tin liên quan tới dự thảo Tiêu chuẩn của các Tiểu vương quốc Ả rập Thống nhất (UAE) đối với hạt cà phê rang như sau:

1. Ngày 25/3/2024, các Tiểu vương quốc Ả rập Thống nhất (UAE) đã gửi thông báo số G/TBT/N/ARE/604, G/TBT/N/BHR/690, G/TBT/N/KWT/670, G/TBT/N/OMN/519, G/TBT/N/QAT/669, G/TBT/N/SAU/1329 về dự thảo quy chuẩn kỹ thuật (QCKT) đối với hạt cà phê rang. Sản phẩm thuộc phạm vi điều chỉnh của dự thảo QCKT là hạt cà phê (nguyên hạt hoặc xay), loại rang từ cà phê nhân xanh (cà phê tươi), được sản xuất tuân thủ tiêu chuẩn GSO 21 về yêu cầu vệ sinh đối với cây thực phẩm. Dự thảo này cũng quy định các yêu cầu về ghi nhãn, giới hạn về các chất ô nhiễm và chất độc theo tiêu chuẩn GSO 193 về chất gây ô nhiễm và độc tố trong thực phẩm và thức ăn chăn nuôi, quy trình lấy mẫu, thử nghiệm và các yêu cầu khác về chất lượng của sản phẩm. Dự thảo không áp dụng đối với loại hạt rang xay được thêm vào các loại phụ gia và cà phê tan.

Theo UAE, dự thảo này được xây dựng nhằm mục tiêu bảo vệ sức khỏe và sự an toàn của con người và cung cấp thông tin về sản phẩm cho người tiêu dùng. UAE sẽ tiếp nhận ý kiến góp ý từ các nước Thành viên WTO đến hết ngày 25/5/2024.

Văn bản đầy đủ của dự thảo QCKT này đề nghị tìm hiểu tại đường dẫn

https://members.wto.org/crnattachments/2024/TBT/SAU/24_02188_00_e.pdf hoặc tại Phụ lục công văn.

2. Tổng cục TCĐLCL gửi Quý cơ quan, đơn vị thông tin và đề nghị phản hồi cho Tổng cục TCĐLCL trước ngày 15/5/2024 trong trường hợp có góp ý đối với dự thảo nêu trên của UAE. Ý kiến của Quý cơ quan sẽ được Tổng cục TCĐLCL tổng hợp gửi cho cơ quan liên quan của UAE để xem xét, tiếp thu.

Thông tin góp ý xin gửi về Tổng cục Tiêu chuẩn Đo lường Chất lượng qua Văn phòng TBT Việt Nam, số 8 Hoàng Quốc Việt, Cầu Giấy, Hà Nội, điện thoại 02437912145, email: tbtvn@tcvn.gov.vn./.

Nơi nhận:

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- Như trên;
- Thứ trưởng Lê Xuân Định (để b/c);
- Luu: VT, TBT.

Hà Minh Hiệp

Phụ lục DỰ THẢO QUY CHUẨN KỸ THUẬT CỦA CÁC TIỀU VƯƠNG QUỐC Ả RẬP ĐỐI VỚI HẠT CÀ PHÊ RANG

(kèm theo Công văn số /TĐC-TBT ngày tháng năm 2024 của Tổng cục Tiêu chuẩn Đo lường Chất lượng)

GSO 0000:2023

مواصفة قياسية خليجية

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

مشروع نهائي Draft Standard FDS

إعداد اللجنة الفنية الخليجية رقم ه TC٠٥

Prepared by GSO Technical Committee No. TC05

GSO / 2023

البن ومنتجاته - حبوب البن المحمص

COFFEE AND COFFEE PRODUCTS - ROASTED COFFEE BEANS

ICS: 67.140.20

This document is a draft Gulf Technical Regulation circulated for comments. It is, therefore, subject to alteration and modification and may not be referred to as a Gulf Technical Regulation until approved by GSO.

هذه الوثيقة مشروع للائحة فنية خليجية تم توزيعها لإبداء الرأي والملحوظات بشأنها، لذلك فإنها عرضة للتغيير والتبديل، ولا يجوز الرجوع إليها كلائحة فنية خليجية إلا بعد اعتمادها من الهيئة.

Coffee and Coffee Products: Roasted Coffee Beans

1- Scope and Field of Application

This GSO standard is concerned with the requirements for whole and ground roasted coffee beans obtained by roasting green coffee beans of the genus (*Coffea*). It does not include ground roasted coffee to which added by any other additives and Instant Coffee.

- 2- Complementary Standards
- 2.1 GSO 9 "Labeling Of Prepackaged Food Stuffs".
- 2.2 GSO 21 "Hygienic Regulation For Food Plants And Thier Personal".
- 2.3 GSO 150 1 "Expiration Dates For Food Products -Part 1 : Mandatory Expiration Date".
- 2.4 GSO 193 "Contaminants And Toxins In Food And Feed".
- 2.5 GSO 382 "MAXIMUM LIMITS OF PESTICIDE RESIDUES IN AGRICULTURAL AND FOOD PRODUCTS".
- 2.6 GSO 442 "GREEN COFFEE BEANS".
- 2.7 GSO 839 "Food Packages Part 1: General Requirements".
- 2.8 GSO 1016 "Microbiological Criteria For Foodstuffs".
- 2.9 GSO 1863 "Food Packages Part 2: Plastic Package General Requirements".
- 2.10 GSO 2388 "Decaffeinated Coffee".
- 2.11 GSO 2700 "Migration Limits Of Food Packages".
- 2.12 GSO ISO 6670 "INSTANT COFFEE IN CASES WITH LINERS SAMPLING".
- 2.13 GSO ISO 11294 "Roasted Ground Coffee -- Determination Of Moisture Content -- Method By Determination Of Loss In Mass At 103 Degrees C (Routine Method)".
- 2.14 The standard specification that will be approved by the Authority related to "Determination of the caffeine content".

Foreword

GCC Standardization Organization (GSO) is a regional organization which consists of the national standardization bodies of GCC member states. One of GSO main functions is to issue gulf standards and technical regulations through specialized technical committees.

GSO Ministerial Committee in its meeting number (.....) held on/..../H, which corresponds to/..../has approved the update of Gulf (Technical Regulation) GSO: titled "Coffee and coffee products - roasted coffee beans" in English language which was studied through the technical program of GSO Technical Committee for Food and Agricultural Products (.....) in schedule. (Arabic) text is considered the official text in case of any conflicts between the two. This document will cancel and replace the Gulf Technical Regulation GSO 1391:2002 "Ground Roasted Coffee" and GSO 2197:2012 "Coffee And Coffee Products - Roasted Coffee Beans".

2.15 The standard specification that will be approved by the authority related to "Determination of particle size of ground roasted coffee".

3- Definitions

- Roasted coffee: Coffee obtained by roasting green coffee.
- 3.2 Roasting: Heat treatment which produces fundamental chemical and physical changes in the structure and composition of green coffee, bringing about darkening of the coffee and development of the characteristic flavour of roasted coffee.
- 3.3 Grinding: Mechanical operation intended to produce fragmentation of roasted coffee beans, resulting in ground coffee.
- 3.4 Ground roasted coffee: Product obtained by grinding roasted coffee.
- 3.5 Decaffeinated ground roasted coffee: Roasted ground coffee obtained from decaffeinated green coffee.
- 3.6 Agtron scale: a scale used to determine the grade of roasting color of coffee beans.
- 3.7 SCAA disk value: a colorimetric card used to determine the grade of roasting color of coffee beans.
- 3.8 Soxhlet extraction apparatus: is a solvent extraction device.
- 3.9 Thimble: the weight of the material to be extracted and placed in the extraction device.

4- Requirements

- 4.1 The green coffee beans used must comply with GSO standard stated in (2.6)
- 4.2 The product shall produce according to GSO standard stated in item (2.2).
- 4.3 The limits of pollutants and toxins shall not exceed the maximum limits approved in the GSO standard stated in item (2.4).
- 4.4 The limits of pesticide residues shall not exceed the maximum limits

approved in the GSO Standard stated in item (2.5). 4.5 The microbiological limits shall not exceed the maximum limits approved in the GSO Standard stated in item (2.8). 4.6 The expiration dates of food products shall be according to GSO standard stated in item (2.3). 4.7 Food additives are not permitted. 4.8 The caffeine content shall not be less than 0.8% by mass, and for decaffeinated it shall not be more than 0.1%. 4.9 The product shall be free from foreign matters, impurities, insects and their parts or wastes. 4.10 It shall retain its natural properties and be free from rancidity or any foreign odors. 4.11 It shall be homogeneous in color, ranging from light to dark brown. 4.12 The moisture content shall not exceed 5% by mass. 4.13 The total ash shall not exceed 5% by mass. 4.14 The acid insoluble ash shall not exceed 1% by mass. The water-soluble matter shall be between 25% - 32% by mass. 4.15 4.16 The alkalinity of the water-soluble ash in milliliters of 0.1 N hydrochloric acid per gram of material shall be between 3.5 - 7. 4.17 The petroleum ether extract shall not be less than 8.5% by mass. 4.18 The decaffeinated whole and ground roasted beans shall be comply with the GSO standard stated in (2.10). 4.19 The acrylamide content in roasted coffee beans shall not exceed 400 μg/kg.

The particle size of the ground roasted beans shall be in accordance with the following table:

4.20

Table (1): The particle size of the ground roasted beans

	% by weight	% by weight	% by weight
Type	retained on	retained on 500-	retained on 355-
	710-microns sieve	microns sieve	microns sieve
Fine	10	15	50

Medium	20	20	30
Coarse	30	25	15

4.21 The roasting color grades using by Agtron scale or SCAA disk value shall be according to the following table:

	ing to the following these:	Grades	
Roasting color	Description	Agtron scale	SCAA disk value
Light	a light brown in color with no oil on the surface of beans	80-90	85
Medium	a medium brown in color which has a stronger flavor, and may exhibit a slight oily surface	50-60	55
Moderately dark	a moderately dark brown in color with some oil on the surface and slightly bittersweet aftertaste.	40-50	45
Dark	a dark brown in color which has a glossy oily surface and a pronounced bitterness. The colors of roasting run from slightly dark to charred	30-40	35

5- Sampling

5.1 The samples shall be drawn according to the GSO standard stated in (2.12).

6- Examination and testing methods

6.1 The caffeine content can be determined according to the GSO standard stated in (2.14).

6.2 The moisture content can be determined according to the GSO standard stated in (2.13) or using moisture measuring devices.

- 6.3 The total ash can be determined according to the following method:
- 6.3.1 **Procedure:** Weigh accurately about 5 g of the material in a platinum dish. Heat at $100 \,^{\circ}\text{C} \pm 2 \,^{\circ}\text{C}$ until water is expelled and then heat slowly over a flame until swelling ceases. Ignite in a muffle furnace at $550 \,^{\circ}\text{C} \pm 10 \,^{\circ}\text{C}$ until grey ash results. Cool the dish in a desiccator and weigh. Repeat this process of heating for 30 min, cooling in a desiccator, and weighing until the difference between two successive weighing is less than one milligram. Record the lowest mass.

6.3.2 Calculation:

Total ash (dry basis) = $\frac{10000 (m_2-m)}{(m_1-m)(100-H)}$ percent by mass

 M_2 = the mass in g of the dish with the ash

M= the mass in g of the empty dish

M₁= the mass in g of the dish with the material (coffee powder)

H= the percentage of moisture

- 6.4 The acid insoluble ash can be determined according to the following method:
- 6.4.1 Reagent: Dilute hydrochloric acid, approximately 5 N, prepared from concentrated hydrochloric acid.
- 6.4.2 **Procedure:** Add 25 mL of dilute hydrochloric acid to the ash contained in the dish, then Cover the dish with a watch-glass and heat it on a water-bath for 10 min. After that cool and filter the contents of the dish through Whatman filter paper No. 42 or its equivalent and wash the filter paper until the washings are free from the acid. Return the filter paper and the residue to the dish. Keep it in an electric air-oven maintained at $135 \, ^{\circ}\text{C} \pm 2 \, ^{\circ}\text{C}$ for about 3 h. Ignite in a muffle furnace, cooling and weighing at half-hour intervals until the difference in weight between the two successive weighing at half-hour intervals until the difference in weight between the two successive weighing is less than one milligram and record the lowest mass.

6.4.3 Calculation:

The acid insoluble ash (dry basis) = $\frac{10000 (W_2 - W)}{(W_1 - W)(100 - M)}$

 W_2 = the mass in g of dish with acid insoluble ash W= the mass in g of the empty dish

W₁= the mass in g of dish with the material M= the percentage of moisture

- 6.5 The water-soluble matter can be determined according to the following method:
- 6.5.1 **Procedure:** Weigh accurately about 2 g of the material in a 500-mL Erlenmeyer flask and add 200 mL of water and reflux over a low flame for one hour, then cool and filter through a Whatman filter paper No. 1 or its equivalent, wash three times with 10 mL to 15 mL of water finally make up to 250 mL in a graduated flask, after that shake well and pipette a 50 mL aliquot in a tared dish and evaporation, dry for one hour in an oven at 100 °C ± 2 °C, cool in a desiccator and weigh, then repeat this process of heating for 30 min, cooling in a desiccator and weighing until the loss in mass between two successive weighing is less than one milligram and record the lowest mass.

6.5.2 Calculation:

The water-soluble matter (dry basis) = $\frac{50000 (m_2 - m_1)}{m(100 - H)}$

 M_2 = the mass in g of the dish with the ash

M= the mass in g of the empty dish

 M_1 = the mass in g of the dish with the material (coffee powder)

H= the percentage of moisture

- 6.6 The alkalinity of the water-soluble ash can be determined according to the following method:
- 6.6.1 **Reagent:** Standard hydrochloric acid, dissolve 0.5 g of methyl orange in 500 mL of distilled water. Filter, if necessary.
- 6.6.2 Procedure: Titrate the filtrate obtained in Clause B.1 with standard hydrochloric acid, using the methyl orange indicator. Note the volume in milliliters of the acid used then calculate the quantity of 0.1 N hydrochloric acid required to neutralize the water-soluble ash from one gram of the dry material.
- 6.7 The petroleum ether extract can be determined according to the following method:
- 6.7.1 **Apparatus:** Soxhlet extraction apparatus.
- 6.7.2 **Reagent:** Petroleum ether, distilling below 60 °C.
- 6.7.3 **Procedure:** weigh accurately about 10 g of the material in a suitable thimble and dry for 2 h at 100 °C \pm 2 °C. Place the thimble in the

soxhlet extraction apparatus and extract with the solvent for about 16 h. Dry the extract contained in the Soxhlet flask, the empty weight of which has been previously determined, at 95 °C to 100 °C for an hour. Cool in a desiccator and weigh. Continue the alternate drying and weighing at 30 min intervals until the loss in weight between two successive weighings is not more than one milligram. Record the lowest weight.

6.7.4 **Calculation:**

Percentage by weight: = $\frac{10000 (W_1 - W_2)}{W(100 - M)}$

 W_1 = The mass in g of Soxhlet flask with the petroleum ether extract.

W₂= The mass in g of Soxhlet flask, clean and dry.

W= The mass in g of the material taken for test.

M= The percentage of moisture.

- 6.8 The particle size of ground roasted beans can be determined according to the GSO standard stated in (2.15).
- 6.9 The color of the roasted bean can be determined using Agtron scale or SCAA disk value.

7- Packaging, transportation and storage

- 7.1 Whole and ground roasted beans shall be packed in suitable packages according to the GSO standard stated in (2.7, 2.9, 2.11).
- 7.2 The packed product shall be transported in a way as to protect it from contamination.
- 7.3 The packed product shall be stored in clean and well-ventilated sores away from sources of heat, moisture, and harmful materials, preferably in packages or bags that prevent direct exposure to sunlight.

8- Labelling

Without prejudice to the requirements given in the GSO standard stated in (2.1), the following information shall be declared on each bag or container:

- 8.1 Product name (whole roasted bean) or (ground roasted bean) depends on the product type.
- 8.2 Grading according to roasting color (light or medium or moderately dark or dark).

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- 8.3 Grading according to the particle size of ground roasted bean (fine, medium, coarse).
- 8.4 In the case of decaffeinated coffee, it shall be labelled on the product and the name of the solvent used.



مواصفة قياسية خليجية

المصطلحات الفنية

Roasted coffee	 بن محمص
Ground roasted coffee	 بن محمص مطحون
Agtron scale	
SCAA disk value	
Soxhlet extraction apparatus	 جهاز استخراج
Thimble	 كشتبان
Muffle furnace	 فرن مافیل
Desiccator	 مجففم
Watch-glass	 زجاج ساعة

References

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- 4. EAS 105: Roasted coffee beans and roasted ground coffee Specification