

GCC Standardization Organization (GSO)

Final Draft

(Update)

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Requirements for Handling Formulated Caffeinated Beverages

Developed by

GSO Technical Committee for Food and Agricultural Products

This document is a draft GSO Standard disseminated for feedback and remarks, and is therefore subject to changes and modifications. It shall only be considered a reference GSO Standard upon ratification by the GSO Board of Directors.

ICS: 67.160.00

Foreword

The GCC Standardization Organization (GSO) is a regional organization consisting of GCC national standardization and metrology bodies. One of the GSO's main functions is to develop GCC standards through specialized technical committees (TCs).

As part of the agenda of TC05 – GSO Technical Committee for Food and Agricultural Products, the GSO updated GSO Standard 1926 – Requirements for Handling Formulated Caffeinated Beverages. The draft GSO Standard was prepared by the UAE.

The GSO Standard was adopted during the GSO Board of Directors' meeting no. (--), held on -- H, corresponding to --/--/-- AD, thus cancelling and replacing Standard No. GSO 1926/2009.

Requirements for Handling Formulated Caffeinated Beverages

1. Scope

This Standard addresses requirements for handling formulated caffeinated beverages, excluding sports beverages and beverages essentially manufactured from tea and coffee.

2. Complementary References

2.1 GSO 9: Labeling of prepackaged foodstuffs;

2.2 GSO 21: Hygienic Regulations for Food Plants and their Personnel;

3.2 GSO 11: Non-alcoholic Carbonated Beverages – Preliminary Examination and Determination of Total Acidity and Sodium Carbonate Contents;

2.4 GSO 12: Non-alcoholic Carbonated Beverages – Determination of Carbon Dioxide Content;

2.5 GSO 13: Non-alcoholic Carbonated Beverages – Determination of Sulfur Dioxide Content;

2.6 GSO 14: Non-alcoholic Carbonated Beverages – Determination of Phosphoric Acid Content;

2.7 GSO 20: Methods for the Determination of Contaminating Metallic Elements in Foodstuffs;

- 2.8 GSO 1413: Non-alcoholic Carbonated Beverages – Methods of Bacteriological Examination;
- 2.9 GSO CAC-GLI: General Guidelines on Misleading Food Claims;
- 2.10 GSO 1016: Microbiological Restrictions for Food Products;
- 2.11 GSO CAC 193: General Standards for Contaminants and Toxins in Food;
- 2.12 GSO 2233: Requirements for Nutritional Labeling;
- 2.13 Standard which will be adopted by the GSO on allowed food additives in food products;
- 2.14 GSO 150-2: Food Expiration Dates – Part II: Optional Expiry Dates;
- 2.15 GSO 1793: Two-piece Aluminum Cans Used for Canned Food (Soft Drinks and Juice);
- 2.16 GSO 1409: Non-alcoholic Carbonated Beverages – Sampling;
- 2.17 GSO 2055-1: Halal Products – Part I: General Requirements for Halal Food;
- 2.18 GSO 839: Food Packages – Food Packages – Part I: General Requirements;
- 2.19 GSO 2333: Requirements for Foods with Nutritional and Health Claims;
- 2.20 GSO 64: General Requirements for Food with Special Nutritional Uses;
- 2.21 GSO 955: Allowed Sweeteners in Food Products; and
- 2.22 GSO 1069: General Principles for Adding Essential Nutrients to Food.

3. Terminology and Definitions

For the purposes of this Standard, the following terminology and definitions shall apply:

3.1: Caffeinated Beverages:

Non-alcoholic flavored beverages typically prepared from water, to which caffeine is added. These beverages may contain carbohydrates, amino acids and vitamins. Authorized natural fruit juice or pulp and natural plant extracts may also be added.

3.2 Caffeine:

Total caffeine content of various sources in the final product.

4. General Requirements

4.1 All substances used in the manufacture of the beverages shall comply with relevant standards.

4.2 The product shall be manufactured according to the health criteria of the Standard referenced in item (2.2).

4.3 These products shall not be manufactured or imported prior to registration with the relevant authorized official body¹.

4.4 The product shall be free of hormones and prohibited stimulants.

4.5 Gas content in carbonated caffeinated beverages shall be in accordance with good manufacturing practices.

4.6 Food additives must comply with the limits mentioned in the Standard referenced in item (2.13).

¹ Based on registration requirements adopted by the competent official authorities in each country

4.7 The caffeine content in the product shall not be less than 14.5 mg/100 ml, and shall not exceed 32 mg/100 ml.

4.8 The product shall be free from foreign residues, moldy and fermentation odors, and other impurities.

4.9 Microbiological limits shall not exceed the allowed limits in the Standard referenced in item (2.10).

4.10 Contaminant and toxin limits shall not exceed the limits established in the Standard referenced in item (2.11).

4.11 The product shall comply with the provisions of Islamic law and the criteria of the Standard referenced in item (2.17).

4.12 Ethanol content shall not exceed 0.3% of the final product resulting from the presence of natural ingredients such as: fruit or malt, with no alcohol added by the manufacturer.

4.13 The total acidity shall not exceed 0.3% by weight expressed as anhydrous (water-free) citric acid.

4.14 If any artificial sweeteners are added, the Standard referenced in item (2.21) shall apply, and the added percentage and relevant warnings for the used sweetener should be mentioned.

4.15 Without prejudice to the Standard referenced in item (2.11), heavy metals shall not exceed the limits established in Table 1:

Table 1: Maximum Limits for Heavy Metals

Heavy Metals	Maximum Limit (parts per million)
Lead	0.02
Cadmium	0.01
Mercury	0.01
Tin	250
Non-organic arsenic	0.1
*Arsenic	1.0
Iron	0.5
Copper	20
* If the total arsenic (organic and non-organic) exceeds the value listed in the table, check the maximum concentration of the non-organic arsenic	

5- Packaging, Storage, Transportation and Display

5.1 The product shall be packaged in safe, suitable and dry containers free from defects and provided with a tight seal to preserve the integrity of the product and protect it against spoilage and contamination, in compliance with the Standards referenced in items (2.15) and (2.18).

5.2 The product shall be stored away from moisture, direct sunlight and sources of contamination and undesirable odors.

5.3 The product shall be transported in a manner that safeguards the containers from damage, contamination and undesirable odors, using clean and suitable transportation vehicles.

5.4 The following requirements shall apply for product display and handling:

5.4.1 Energy drinks shall be displayed in dedicated display spaces, shelves or refrigerators and separated from other beverages and food products in retail shops that sell directly to consumers. A sign should be affixed above the display that clearly and prominently features the warnings contained in item 8.1, preceded by the words (Health Warning).

5.4.2 The product shall only be displayed in its original container and shall not be mixed with other juices or beverages.

5.4.3 The capacity of each container shall not exceed 250 ml.

5.4.4 It is prohibited to advertize or conduct promotional campaigns for the product in the media, be it print, audio or visual.

5.4.5 It is prohibited to distribute the product for free to any age group.

5.4.6 Energy drink manufacturing companies, distributors and suppliers are prohibited from sponsoring sports, social or cultural activities, or marketing/promoting the product through such activities.

5.4.7 The sale of energy drinks is prohibited in government restaurants or canteens, educational and health institutions, and public or private sports clubs.

5.4.8 The sale of energy drinks to anyone under the age of 16 is prohibited.

6. Sampling

Samples are taken in compliance with the Standard referenced in item (2.16).

7. Testing Methods

7.1 Testing is conducted in compliance with the Standards referenced in items (2.3) to (2.8).

7.2 All other required tests shall be performed on a representative sample to ensure that the product complies with the provisions of this Standard.

8- Labeling

Without prejudice to the provisions of the Standards referenced in items 2.1, 2.9, 2.12 and 2.19, the following labels shall appear in Arabic and may be written in any other language alongside standard Arabic:

8.1 The following warnings should be written clearly and prominently, in different color print and preceded by the words (Health Warning), using font that is twice as large as the product ingredients front, in order to be easily legible:

8.1.1 (Not suitable for pregnant or lactating women, persons under the age of 16 years², persons with sensitivity to caffeine, and those who suffer from heart conditions, as well as athletes during exercise).

8.1.2 (The consumption of this product is not recommended in large amounts due to its high caffeine content) followed by the quantity of caffeine expressed in milligrams per 100 ml which should be clearly written under the product name.

8.2 Nutritional information for the ingredients should be stated in compliance with the Standard referenced in item (2.12), provided that the measuring unit used for caffeine and all other components is milligram per 100 ml, without mentioning the equivalent Recommended Daily Requirement (RDA) for vitamins or any other such expression.

² The 'age of 16 years' shall continue to apply unless competent official authorities establish, by virtue of a new decision, the age groups whose health may be adversely affected by the product.

8.3 The daily individual consumption of the following substances, if any, in the product shall comply with Table 2.

Table 2: Maximum Limited for Allowed Consumption per Day

Substance	Maximum Allowed Consumption per Day
Thiamine	In compliance with Standard/Technical Regulations referenced in item (2.22)
Riboflavin	
Niacin	
Vitamin B6	
Vitamin B12	
Pantothenic Acid	
Taurine	2000 mg
Glucuronolactone*	1200 mg
Inositol	100 mg
*The minimum limit shall be mandatory when energy drinks contain caffeine, taurine and/or inositol	

8.4 The expiry date shall be indicated in compliance with the Standard referenced in item (2.14).

References:

Australia/New Zealand Standard 2.6.4 Formulated Caffeinated Beverages