

# GCC STANDARDIZATION ORGANIZATION (GSO)

## Draft Standard FDS

Prepared by GSO Technical Committee No. TC05

**GSO 05/FDS/ 1926: 2019**

## Energy Drinks

ICS: 67.040.00

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## Submit

GCC Standardization Organization (GSO) is a regional organization which consists of the National Standards and Bodies of GCC member States. One of GSO main functions is to issue Gulf Standards/Technical regulations through specialized technical committee (TCs)

GSO through the technical program of committee TC No (5) “Technical Committee for Standards of Food & Agriculture Products” has prepared this Technical regulation. The Draft Technical regulation has been prepared by Saudi Arabia. The draft Technical regulation has been prepared based on relevant ADMO, international and national foreign standards and references.

This Technical regulation has been approved by GSO Board of Directors in its meeting No. (15), held on 24.5.2009

## Energy Drinks

### 1. Scope

This standard is concerned with the conditions that shall be met in non-alcoholic drinks with added stimulant substances such as caffeine and shall not include sports drinks.

### 2. Complementary Standards

- 2.1 GSO 9: Labeling of prepackaged foodstuffs.
- 2.2 GSO 21: Hygienic Regulations for Food Plants and their Personnel.
- 2.3 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 GL 1: General Guidelines on Claims.
- 2.10** GSO 1016: Microbiological Criteria of Food Product- Part 1.
- 2.11** GSO/CAC 193: General Standard for Contaminants and Toxins in Food and Feed.
- 2.12** GSO 2233: Requirements of nutritional labeling.
- 2.13** GSO 2500: Additives permitted for use in food.
- 2.14** GSO150-2: Expiration dates for food products - Part 2: Voluntary Expiration dates.
- 2.15** GSO 1793: The Two Pieces Aluminum Round Cans Used for Canning Food (Beverages & Stuffs)
- 2.16** GSO 1409: Non-Alcoholic Carbonated Beverages – Sampling.
- 2.17** GSO 2055-1: Halal Food - Part 1 - General Requirements.
- 2.18** GSO 839: Food packages - Part 1: General requirements.
- 2.19** GSO 2333: Requirements for food with Health and Nutrition claims.
- 2.20** GSO 2538 20: Maximum limits for residues of ethyl alcohol (ethanol) in foods.

### **3. Terms and Definitions:**

For the purposes of this standard, the following terms and definitions are used:

#### **3.1 Energy Drinks:**

Carbonated or non-carbonated beverages that are typically prepared from water, natural carbohydrates ingredients, stimulant materials such as (caffeine, Taurine, Inositol, Glucuronolactone) or their sources, other substances such as vitamins, minerals, amino acids and permitted food additives, including natural fruits juices or fruits pulps and natural plant extracts may also be added.

#### **3.2 Caffeine:**

The total content of caffeine from various sources in the final product.

#### **3.3 Maximum Daily Consumption:**

The maximum amount of the product to be consumed daily per person and must not be exceeded as shown on the label.

## 4. General Conditions:

- 4.1 The substances introduced into the manufacturing of the products shall be in conformity with their respective standards.
- 4.2 The production shall be carried out according to the sanitary conditions laid down in the standard stated above in item (2.2).
- 4.3 These products shall be produced or imported only after they are registered in the official competent authority.
- 4.4 The product shall be free of prohibited stimulants and hormones.
- 4.5 The volume of gas in the case of soft energy drinks shall be in according to good manufacturing practice.
- 4.6 Additives shall not exceed as the limits specified in the standard stated above in item (2.13).
- 4.7 Caffeine content in the product shall not be less than 14.5 mg / 100 ml and not more than 32 mg / 100 ml.

**4.8** The following additives per 100 ml and their corresponding limits shall not be exceeded:

Inositol	20 mg
Glucuronolactone	240 mg
Taurine	400 mg

**4.9** The product shall be free of foreign materials, mold and fermentation odors, and other impurities.

**4.10** microorganisms shall not exceed the permissible microbiological limits in the standard stated above in item (2.10).

**4.11** Contaminants and toxins shall not exceed the limits stated in the standard stated above in item (2.11).

**4.12** Product shall not contravene the provisions of Islamic Sharia and shall be in conformity with the standard stated above in item (2.17).

**4.13** Ethanol shall not be in excess to the limits specified in the standard stated above in item (2.20).

**4.14** Heavy metals shall not exceed the limits stated in item (2.11).

## 5. Packing, Transportation and Storage

**5.1** Energy Drinks shall be packed in suitable containers to safeguard the hygienic quality of the product. Containers have to be dry, free from defects and provided with a tight seal so as to preserve the integrity and quality of the product and to protect the product against any potential spoilage or contamination. All packaging components shall comply to the standard referenced in item 2.15 and item 2.18

**5.2** The product shall be stored away from moisture, direct sunlight, and any potential sources of contamination, and undesired odors.

**5.3** Transport of these products shall be by suitable and clean vehicles, which would preserve the quality and feel of the product and its packaging and safeguard it against defects and undesired odors.

## 6. Sampling

Samples shall be collected as laid down in item (2.16).

## 7. Methods of Testing

**7.1** Analytical testing of the product must be in accordance to the standards referenced in item (2.3) through (2.8).

**7.2** The representative sample shall go through all the necessary tests and checks to ensure product conformity with the terms of this standard.



## 8 Labelling

Without prejudice to what is stated in the standards referenced in items 2.1, 2.9, 2.12, 2.19, the following specific provisions shall be declared on the label in Arabic and may be written in any other language besides basic Arabic language:

**8.1** The following cautionary statement should be added on label: “not suitable for pregnant or lactating women, persons under 16years persons with sensitivity to such products, or those who suffer from diseases that may affect their health especially heart patients, arteries, diabetics, and athletes during exercise”.

**8.2** To mention the allowed safe limit of consumption per day, and the legal responsibility of the manufacturer, taking into account that the maximum daily consumption per person, if applicable, for the substances shown in Table 1.

**Table (1) Maximum Daily Consumption**

<b>Item</b>	<b>Maximum Daily Consumption</b>
Thiamine	40 mg
Riboflavin	20 mg
Niacin	40 mg
Vitamin B6	10 mg
Vitamin B12	10 mg
Pantothenic acid	10 mg ug
Taurine	2000 mg
Glucuronolactone	1200 mg
Inositol	100 mg

**8.3.** For products that exceed caffeine levels of 100 mg/L an additional cautionary statement “High Caffeine Content” shall be included on the label.

**8.4** The total caffeine content from all sources must be shown and expressed in milligram per can/ daily serving.

**8.5** The label shall include the product nutrition information as to what is stated in the standards referred to in item (2.12).

**8.6.** The product shall be displayed on separate section or shelves away from other foods and beverages in retail shops that sell directly to consumers, and top warnings contained in this standard under item (1.8) should be written in a clear, legible and prominent text.

**8.7** Energy drink products shall be displayed within individual refrigerators or designated shelves away from other foods and beverages. The warnings as declared on the label of the package shall be posted on the designated refrigerators and shelves and written in a clear, legible and prominent text.

**8.8** The shelf-life shall be according to what is stated in the standard referenced in item (2.14).

## Terms

Energy Drinks ..... مشروبات طاقة

Caffeine ..... كافيين

Taurine ..... تاورين

Inositol ..... انيستول

Glucuronolactone ..... جلوكورونولاكتون

Pregnancy ..... حمل

Lactating ..... الأرضاع

## References

Australian Standard No. 2.6.4 for power drinks

Health Canada. (2012) Category Specific Guidance for Temporary Marketing Authorization- Caffeinated Power Drinks [online]. Available at:

[http://www.hc-sc.gc.ca/fn-an/alt\\_formats/pdf/legislation/guide-ld/guidance-.caf-drink-boiss-tma-amt-eng.pdf](http://www.hc-sc.gc.ca/fn-an/alt_formats/pdf/legislation/guide-ld/guidance-.caf-drink-boiss-tma-amt-eng.pdf)