# هيئة التقييس لدول مجلس التعاون لدول الخليج العربية
# STANDARDIZATION ORGANIZATION FOR G.C.C (GSO)

**Final draft standard**
**GSO……/……..**

الاشتراطات العامة لأغذية بناء الجسم
# GENERAL REQUIREMENTS FOR BODY BUILDING FOODS

**ICS:67.40**

Prepared By
Gulf technical committee for standards of food and agriculture products

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# GENERAL REQUIREMENTS FOR BODY BUILDING FOODS

**Date of GSO Board of Directors Approval :**
**Issuing Status : Technical regulation**

## Foreword

**GCC Standardization Organization (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 regulations through specialized technical committees (TCs).**

**GSO through the technical program of committee TC No (5) "Technical committee for standards of food and agriculture products" has prepared this Standard. The Draft Standard has been prepared by SULTANTE OF OMAN.**

**This standard has been approved as a Gulf Technical regulation by GSO Board of Directors in its meeting No. …….**

# GENERAL REQUIREMENTS FOR BODY BUILDING FOODS

## 1. SCOPE AND FIELD OF APPLICATION

This standard is concerned with the general requirements for Body building foods. And does not use for the purposes of treatment.

## 2. COMPLEMENTARY REFERENCES

2.1 GSO 9 "Labelling of Prepackaged Foods".

2.2 GSO 654 “General Requirements for Prepackaged Foods for Special Dietary Uses”

2.3 GSO 168 “Conditions of Storage Facilities for Dry and Canned Foodstuffs”.

2.4 GSO 839 “Package of Food Products – Part 1 – General Requirements”.

2.5 GSO 988 “Limits of Radiation Levels Permitted in Foodstuffs”.

2.6 GSO 841 “Maximum Limits of Mycotoxins Permitted in Foods and Animal Feeds - Aflatoxis“

## 3. DEFINITIONS

### 3.1 Body Building Foods

A food produced on the powder, liquids or tablets form and can preparation by one or more of the following components: amino acids, vitamins, mineral nutrients, plant extracts, natural and artificial flavoring and fillers and may contain natural sugars and dietary fiber

### 3.1 Amino acids

Amino acids are Organic compounds mainly consist of carbon, hydrogen, oxygen, and nitrogen, The amino acids are joined together to form the peptide consist of protein (Appendix 1) which is divided into Essentiall and. on- Essentiall amino acids

### 3.1 Essentiall Amino acids and Non- Essentiall Amino acids

Essentiall amino acids are acids that the body needs extra amounts of them and obtained its through supplied in the diet to cover the daily intake of them while non-Essentiall amino acids can configure by body cover the daily needs of them

## 4. REQUIREMENTS

The following requirements shall be met in product:

4 / 1 Any product intended for the purpose of body building should be registered by the competent authorities with submit the following documents for reiteration:

4/1/1 An original and official of data sheet in full components, with its proportion of each product.

4/1/ An original and official certificate to allow the production and sales in the country of manufacture.

4/1/3 A statement bodies and countries that permitted the marketing of the product.

4/1/4 Risk of misuse and cases that require stop eating the product.

4/1/5 Halal certificate showing that all the ingredients:
- Free of alcohol and pork derivatives.
- It should not be derivative from dead animals.
- To be take from permitted animals and slaughtered according with Islamic rules.

4 / 2 Ingredients should be according to the mention rates on the packaging with tolerance in Results of the analysis ± 5%.

4 / 3 Product should be free from steroids that mention in Annex No. (2) Whether the natural or artificial.

4 / 4 Any material not listed in Annex No. (1) Should be subject to evaluation by the competent authorities in each country member in GCC.

4 / 5 Product must be free of any substances harmful to health or have interactions with medications or treatment May cause damage to health.

4 / 6 Product should be free from any odor or taste that indicate to spoilage and should be have the product characteristics Sensory.

4 / 7 Product should not be intended for treatment purposes

4 / 8 Vitamins and minerals should not be less than 15% of Daily intake specified by WHO When used them in the production

4 / 9 The product packed in pharmaceutically form or not should be marketing according to the legislation each country.

4 / 10 The microbiological criteria shall not exceed the following:

| Microbial | Criteria | Unit |
|---|---|---|
| The total Count bacteria | 10.000 | cell / g |
| Yeasts and molds | 300 | cell / g |
| Coliform | 10 | cell / g |
| E.coli | negative | |
| Salmonella | negative | |
| Staphylococcus arias | negative | |

4 / 11 The toxic Heavy Metals should not exceed the amount which may represent a hazard to health if present in the product

4 / 12 Radiation limits should be according to GSO mentioned in item 2.5.

4 / 13 Mycotoxins limits should be according to GSO mentioned in item 2.6

**5. PACKAGING :**

Without prejudice to what is stated in the GSO item (2/4) the following conditions should be take into account when packing the conditions:

5.1 The product shall be packed in hygienic containers which its protects the characteristics quality the product

5.2 Container and packaging material shall be made of only safe substances and suitable for their intended use

**6. TRANSPORTATION AND STORAGE**

Without prejudice to what is stated in the GSO item (2/3) the container shall be transported and stored in such a way so as to protect them from contamination and damage at 25C٥

**7 . LABELLING**

without prejudice to the requirements of GSO mentioned in 2.1 the following information shall be written in Arabic and may be written in other language beside Arabic on the label of each packet for sale to consumer :

7. 1 Name of the product followed by “food supplement for body building” with reference to the category of nutrient “ amino acids , vitamins, minerals” if necessary .

7.2 list of ingredients s Statement involved in production.

7.3 nutritional value or facts in 100 g or 100 ml or serving as quantified on the label

7.4 Name and address of manufacturer ,country of manufacture, name of body registration and registration number if possible

7.5 Name and address of the importer, name of body registration and registration number if possible .

7.6 Instructions and age of use

7.7 Statement “not given except with the consent of a doctor or dietitian”

7.8 Cautionary statements if needed, especially in situations that may cause allergic reactions to certain individuals.

7.9 Net weight or volume and in the case of tables The number of tablets shall be declared.

7.10 Date of production and expiration date.

7.11 The statements “Keep away from reach of children”.

7.12 Conditions of storage.

Appendix 1

**Optional Ingredients**

List of Amino Acids

| Amino acid name | Code | Atomic mass (g \ mol) | Average daily intake for adults Mg / kg / bw | Type |
|---|---|---|---|---|
| Alanine | **Ala** | 89,1 | - | Non- Essentiall |
| Arginine | **Arg** | 174,20 | - | Semi- Essentiall |
| Asparagine | **Asn** | 132,12 | - | Non-Essential |
| Aspartate | **Asp** | 133,10 | - | Non-Essential |
| Cysteine | **Cys** | 121,16 | 4.1<br>Met+ Cys =15 | Non-Essential |
| Glutamate | **Gln** | 146,15 | - | Non-Essential |
| Glutamine | **Glu** | 147,13 | - | Non-Essential |
| Glycine | **Gly** | 75,07 | - | Non-Essential |
| Histidine | **His** | 155,16 | - | Semi- Essential |
| Isoleucine | **Ile** | 131,17 | 20 | Essential |
| Leucine | **Leu** | 131,17 | 39 | Essential |
| Lysine | **Lys** | 146,19 | 30 | Essential |
| Methionine | **Met** | 149,21 | 10.4 | Essential |
| Phenylalanine | **Phe** | 165,19 | Phe+ Tyr=25 | Essential |
| Proline | **Pro** | 115,13 | - | Non-Essential |
| Serine | **Ser** | 105,09 | - | Non-Essential |
| Threonine | **Thr** | 119,12 | 15 | Essential |
| Tryptophan | **Trp** | 204,23 | ٤ | Essential |
| Tyrosine | **Tyr** | 181,19 | Phe+ Tyr=25 | Non-Essential |
| Valine | **Val** | 117,15 | 26 | Essential |

**List of vitamins & minerals and other additives**

| **Other sdditives** | | | minerals | vitamins |
|---|---|---|---|---|
| Fructose | Maltodextrin | Luteum | Calcium | Vitamin A<br><br>Vitamin A |
| Gluetin | Vegetables dervatives | Choline | Iodine | Vitamin C<br><br>Vitamin C (ascorbic acid) |
| Dextrose | Triglyceride | Inositol | Magnisium | Vitamin E (tocopherol) |
| Cocoa | Cocunut Flavor 3291 | Ginseng | Zinc | |

| | | | | |
|---|---|---|---|---|
| Chocolate | Pineapple Flavor 3511 | Lycopene | Selenium | Vitamin K |
| Vanilla | L - Carnitine | Carotene | Copper | vitamin $B_1$ (thiamin) |
| Papain | **Microcrystalline** | Taurine | Manganese | Vitamin $B_2$ (riboflavin) |
| Pepsin | Oleic acid | Dietary Fibers | Chrome | Vitamin $B_3$ (niacin) |
| Whey | Linolenic Acid | Permitted Colors | Molybdenum | Vitamin $B_6$ (pyridoxine) |
| | Stearic Acid | Egg Whites | Phosphorous | Folic Acid |
| | Whey Protein | | Potassium | Vitamin $B_{12}$ (cobalamine) |
| | Permitted Additives | | Chloride | Biotin |
| | Ginger roots powder | Soya Flavones | Sodium | Vitamin $B_5$ (patothenic acid) |

Appendix (2)

List of Substances Banned Used in Body Building Food

| Trivial Name | Abbreviation(s) | Systematic Name |
|---|---|---|
| Cholesterol | Chol[1] | 5-cholesten-3beta-ol |
| **Progestins** | | |
| Pregnenolone | P5 or Preg | 3beta-hydroxy-5-pregnen-20-one |
| 17-hydroxypregnenolone | 17-OHP5[1] or 17P5 | 3beta,17-dihydroxy-5-pregnen-20-one |
| Progesterone | P4 or P | 4-pregnene-3,20-dione |
| 17-hydroxyprogesterone | 17-OHP4or 17OHP or 17P4 | 17-hydroxy-4-pregnene-3,20-dione |
| **Androgens** | | |
| Androstenedione | A4 or AE | 4-androstene-3,17-dione |
| 4-hydroxy-Androstenedione | 4-OH-A | |
| 11β-hydroxyandrostenedione | 11βOHA4 or 11βOHΔ4 or OHA[1] | 11beta-4-androstene-3,17-dione |
| Androstanediol | Adiol | 3-beta,17-beta-Androstanediol |
| Androsterone | AN | 3alpha-hydroxy-5alpha-androstan-17-one |
| Epiandrosterone | EPIA | 3beta-hydroxy-5alpha-androstan-17-one |
| Adrenosterone | AT | 4-androstene-3,11,17-trione |
| Dehydroepiandrosterone | DHEA or DHA | 3beta-hydroxy-5-androsten-17-one |
| Dehydroepiandrosterone Sulphate | DHEAS or DHAS | 3beta-sulfooxy-5-androsten-17-one |
| Testosterone | T | 17beta-hydroxy-4-androsten-3-one |
| Epitestosterone | epiT | 17alpha-hydroxy-4-androsten-3-one |
| 5α-dihydrotestosterone | DHT or 5α-DHT | 17beta-hydroxy-5alpha-androstan-3-one |
| 5β-dihydrotestosterone | 5β-DHT | 17beta-hydroxy-5beta-androstan-3-one |
| 11β-hydroxytestosterone | OHT or 11β-OHT | 11beta,17beta-dihydroxy-4-androsten-3-one |
| 11-ketotestosterone | 11-KT | 17beta-hydroxy-4-androsten-3,17-dione |
| **Estrogens** | | |
| Estrone | E1 | 3-hydroxy-1,3,5(10)-estratrien-17-one |
| Estradiol | E2 | 1,3,5(10)-estratriene-3,17beta-diol |
| Estriol | E3 | 1,3,5(10)-estratriene-3,16alpha,17beta-triol |
| **Corticosteroids** | | |
| Corticosterone | B or CORT | 11beta,21-dihydroxy-4-pregnene-3,20-dione |
| Deoxycorticosterone | DOC | 21-hydroxy-4-pregnene-3,20-dione |
| Cortisol | F | 11beta,17,21-trihydroxy-4-pregnene-3,20-dione |
| 11-Deoxycortisol | S | 17,21-dihydroxy-4-pregnene-3,20-dione |
| Cortisone | E | 17,21-dihydroxy-4-pregnene-3,11,20- |

| | | |
|---|---|---|
| | | trione |
| 18-hydroxycorticosterone | 18OHB or 18B | 11beta,18,21-trihydroxy-4-pregnene-3,20-dione |
| 1α-hydroxycorticosterone | 1α-B | 1alpha,11beta,,21-trihydroxy-4-pregnene-3,20-dione |
| Aldosterone | A or ALDO | 18,11-hemiacetal of 11beta,21-dihydroxy-3,20-dioxo-4-pregnen-18-al |

## List of Materials used in the manufacture of food body building

| **universal nutrition** | | **Optimum nutrition** | |
|---|---|---|---|
| Milk thistle | Zinc pivolinate | White willow extract | Oyster |
| mycozyme | 4- androstnedione | Saw palmetto | |
| Cytochrome c | 19-nor-5-androstenedione | Pygeum africanum | Ginkgo biloba |
| Ox bile | 5-androstenediol | Bitter orange extract | Nettle |
| Bromelain | Dehydroepiandrosterone | Para- aminobenzoic acid | Cryptoxanthin |
| Goldenseal | Tribulus terristis L | Triphala extract | Zeaxanthin |
| Smilagenin | Glucosamine sulfat | Chitosan ( fiber) | Inositol |
| Chrysin | Pyridoxine – alfa ketoglutarate | Alfa lipoic acid | Dong Quai |
| Saw palmetto | Vanadyl sulfate | Citrus bioflavonoide | Damiana |
| Campesterol | Pygrum Africanum | Garcinia cambogia extract | Hesperidin |
| Pancreatin | Lysophosphatidylcholine | Deodorized garlic | Rutin |
| Dibencozide | Smilax aristolochiaefolia | GugulipidylCHOLINE | Ostivone |
| L- carnosine | Coleus forskohlii extract | Dandelion leaf powder | Betaine |
| Ferulic acid | Arginine pyroglutamate | Cayenne fruit powder | |
| Betaine HCI | Gamma oryzanol | Dehydroepiandrosterone (DHEA) | Coenzyme Q10 |
| Fucosterol | Colostrums IGF | CHROMIUM PICOLINATE | |
| | Beta – sitosterol | Ma huang extract | |
| Octacosanal | Shark cartilage | Chasteberry extract | |
| Inosine | 5- methyl-7- methoxyisoflavone | phosphatidylcholine | |
| Stigmasterol | 7- isopropoxyisoflavone | Butchers broom powder | |
| Avena sativa 1x | 20- hydroxecdysone triboxybol | | |
| Medicago sativa | 5.7-dihydroxyflavone | | |
| Kudzu | Alpha lipoic acid | | |