

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

Final Draft

GSO 05/SC3/FDS ---- / 2011

الإشتراطات العامة لأغذية الرياضيين
General Requirements for Athlete Food

Prepared By
GSO Technical Sub-Committee for Genetic Modified Foods

This document is a draft GSO Standard circulated for comments. It is, therefore, subject to alteration and modification and may not be referred to as a GSO Standard until approved by GSO Board Of Directors

General Requirements for Athlete Food

Date of Board of Directors' approval :

Issuing Status :

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 sub-committee TC5/SC3"Gulf sub-committee for Genetic Modified Foods" has prepared Gulf Standard for" General Requirements for Athlete Food "The Draft Standard has been prepared by Sultanate Of Oman.

This standard has been approved as a Gulf Technical regulation by GSO Board of Directors in its meeting No. (), held on ,
).

General Requirements for Athlete Food

1. SCOPE AND FIELD OF APPLICATION

This standard is concerned with the general requirements for athlete foods intended to be used for producing energy. And does not use for the purposes of treatment or body building.

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"
- 2.7 CAC 192 "Codex General Standard for Food Additives"

3. DEFINITIONS

3.1 Athlete Foods

It is under the category of foods for special dietary uses and is produced with high nutritional content, in the form of liquid or solid (for example: energy bars, protein bars), to be used by individuals as part of a balanced diet to provide supplemental feeding. It is not intended to be used for weight loss, or as part of medical treatment. Athlete food is mainly produced from proteins, fats and carbohydrates in the form of powders, liquids, tablets or bars. It can be prepared 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 Essential and. on- Essential amino acids

3.1 Essential Amino acids and Non- Essential Amino acids

Essential 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-Essential amino acids can configure by body cover the daily needs of them

4. REQUIREMENTS

The following requirements shall be met in product:

- 4.1 Unless there are decrees which organise the import and registration of these products, Member States shall be registered the product with the relevant authorities to register includes the following documents:
 - 4.1.1 An original and official of data sheet in full components, with its proportion of each product.
 - 4.1.2 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 $\pm 5\%$.
- 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 and according to CODEX Guideline No. 55 "Guidelines for Vitamin and Mineral Food Supplements"
- 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.
- 4.14 All limits of food additives such as flavours, colours..etc shall be according to the standard mentioned in item (2.7).

5. PACKAGING:

Without prejudice to what is stated in the GSO item (2.4) the following conditions should be taking into account when packing the conditions:

- 5.1 The product shall be packed in hygienic containers which it's 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 25C°.

7. LABELLING

Without prejudice to the requirements of GSO Standard 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 athletes" 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 dieticians”
- 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
<u>Alanine</u>	Ala	89,1	-	Non- Essentiall
<u>Arginine</u>	Arg	174,20	-	Semi- Essentiall
<u>Asparagine</u>	Asn	132,12	-	Non-Essential
<u>Aspartate</u>	Asp	133,10	-	Non-Essential
<u>Cysteine</u>	Cys	121,16	4.1 Met+ Cys =15	Non-Essential
<u>Glutamate</u>	Gln	146,15	-	Non-Essential
<u>Glutamine</u>	Glu	147,13	-	Non-Essential
<u>Glycine</u>	Gly	75,07	-	Non-Essential
<u>Histidine</u>	His	155,16	-	Semi- Essential
<u>Isoleucine</u>	Ile	131,17	20	Essential
<u>Leucine</u>	Leu	131,17	39	Essential
<u>Lysine</u>	Lys	146,19	30	Essential
<u>Methionine</u>	Met	149,21	10.4	Essential
<u>Phenylalanine</u>	Phe	165,19	Phe+ Tyr=25	Essential
<u>Proline</u>	Pro	115,13	-	Non-Essential
<u>Serine</u>	Ser	105,09	-	Non-Essential
<u>Threonine</u>	Thr	119,12	15	Essential
<u>Tryptophan</u>	Trp	204,23	4	Essential
<u>Tyrosine</u>	Tyr	181,19	Phe+ Tyr=25	Non-Essential
<u>Valine</u>	Val	117,15	26	Essential

List of vitamins, minerals and other additives

<u>Other ingredients</u>			<u>Minerals</u>	<u>Vitamins</u>
fructose	maltodextrin	lutein	<u>calcium</u>	Vitamin A
Gluten	Plant extracts	choline	<u>Iodine</u>	Vitamin C (ascorbic acid)
dextrose	triglyceride	<u>inositol</u>	<u>Magnesium</u>	Vitamin ₁
Cocoa	Coconut flavor 3291	Ginseng	<u>zinc</u>	Vitamin E (tocopherol)
Chocolate	Pineapple flavor 3511	lycopen	Selenium	Vitamin K
vanilla	Acetyl-L-Carnitine	Carotene	Copper	vitamin B ₁ (thiamin)
papain	Microcrystalline Cellulose	taurine	Manganese	Vitamin B ₂ (riboflavin)
Pepsin	Oleic acid	dietary fiber	Chrome	Vitamin B ₃ (niacin)
whey	Linoleic acid	Colors allowed	<u>molybdenum</u>	Vitamin B ₆ (pyridoxine)
	Stearic acid	Egg whites	Phosphorus	Folic acid- Folate
	Whey Protein		Potassium	Vitamin B ₁₂ (cobalamine)
	Additives allowed		chloride	Biotin
	ginger root powder	isoflavones soy	Sodium	Vitamin B5 (Pantothenic acid)

Appendix (2)

List of Substances which are banned to be used in Athlete Food

Trivial Name	Abbreviation(s)	Systematic Name
<u>Cholesterol</u>	Chol ¹	5-cholesten-3beta-ol
Progestins		
<u>Pregnenolone</u>	P5 or Preg	3beta-hydroxy-5-pregnen-20-one
<u>17-hydroxypregnenolone</u>	17-OHP5 ¹ or 17P5	3beta,17-dihydroxy-5-pregnen-20-one
<u>Progesterone</u>	P4 or P	4-pregnene-3,20-dione
<u>17-hydroxyprogesterone</u>	17-OHP4 or 17OHP or 17P4	17-hydroxy-4-pregnene-3,20-dione
Androgens		
<u>Androstenedione</u>	A4 or AE	4-androstene-3,17-dione
<u>4-hydroxy-Androstenedione</u>	4-OH-A	
<u>11β-hydroxyandrostenedione</u>	11βOHA4 or 11βOHΔ4 or OHA ¹	11beta-4-androstene-3,17-dione
<u>Androstanediol</u>	Adiol	3-beta,17-beta-Androstanediol
<u>Androsterone</u>	AN	3alpha-hydroxy-5alpha-androstan-17-one
<u>Epiandrosterone</u>	EPIA	3beta-hydroxy-5alpha-androstan-17-one
<u>Adrenosterone</u>	AT	4-androstene-3,11,17-trione
<u>Dehydroepiandrosterone</u>	DHEA or DHA	3beta-hydroxy-5-androsten-17-one
<u>Dehydroepiandrosterone Sulphate</u>	DHEAS or DHAS	3beta-sulfoxy-5-androsten-17-one
<u>Testosterone</u>	T	17beta-hydroxy-4-androsten-3-one
<u>Epitestosterone</u>	epiT	17alpha-hydroxy-4-androsten-3-one
<u>5α-dihydrotestosterone</u>	DHT or 5α-DHT	17beta-hydroxy-5alpha-androstan-3-one
<u>5β-dihydrotestosterone</u>	5β-DHT	17beta-hydroxy-5beta-androstan-3-one
<u>11β-hydroxytestosterone</u>	OHT or 11β-OHT	11beta,17beta-dihydroxy-4-androsten-3-one
<u>11-ketotestosterone</u>	11-KT	17beta-hydroxy-4-androsten-3,17-dione
Estrogens		
<u>Estrone</u>	E1	3-hydroxy-1,3,5(10)-estratrien-17-one
<u>Estradiol</u>	E2	1,3,5(10)-estratriene-3,17beta-diol
<u>Estriol</u>	E3	1,3,5(10)-estratriene-3,16alpha,17beta-triol
Corticosteroids		
<u>Corticosterone</u>	B or CORT	11beta,21-dihydroxy-4-pregnene-3,20-dione
<u>Deoxycorticosterone</u>	DOC	21-hydroxy-4-pregnene-3,20-dione
<u>Cortisol</u>	F	11beta,17,21-trihydroxy-4-pregnene-3,20-dione
<u>11-Deoxycortisol</u>	S	17,21-dihydroxy-4-pregnene-3,20-dione
<u>Cortisone</u>	E	17,21-dihydroxy-4-pregnene-3,11,20-trione
<u>18-hydroxycorticosterone</u>	18OHB or 18B	11beta,18,21-trihydroxy-4-pregnene-3,20-dione
<u>1α-hydroxycorticosterone</u>	1α-B	1alpha,11beta,,21-trihydroxy-4-pregnene-3,20-dione
<u>Aldosterone</u>	A or ALDO	18,11-hemiacetal of 11beta,21-dihydroxy-3,20-dioxo-4-pregnen-18-al

List of monitored materials used in the manufacturing of Athlete food

Manufacturer's name : universal nutrition		Manufacturer's name : Optimum nutrition	
Milk thistle	Zinc pivalinate	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 terrestris 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
Dibenzozide	Smilax aristolochiaefolia	GugulipidylCHOLINE	Ostivone
L- carnosine	Coleus forskohlii extract	Dandelion leaf powder	Betaine
Ferulic acid	Arginine pyroglutamate	Cayenne fruit powder	
Betaine HCl	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		

This list needs to be reviewed by the concerned authorities of each country to demonstrate the following:

- Any prohibited material with the reasons for the ban and international references for this ban.
- Any material is not allowed to be given only under the supervision of a doctor.
- Any material you need, or proposes to sell in the pharmacy.
- Materials proposed to be removed for the extension of the optional data.
- This list is not final.
- Any material not restricted will be transferred to the extension of the optional components.

