PHILIPPINE NATIONAL STANDARD

PNS/BFAD 01:2005
ICS 67.220

Ethnic food products – Dry base mixes for soups and sauces

DEPARTMENT OF TRADE & INDUSTRY PHILIPPINES

BUREAU OF PRODUCT STANDARDS

Foreword

The Bureau of Food and Drugs (BFAD), as mandated by RA 3720, to establish and formulate standards on food products, entered into a Memorandum of Agreement with the Industrial Technology Development Institute (ITDI) in 1994 to develop selected ethnic food product standards.

Thus, the Food Standards Technical Committee (FSTC) was formed by ITDI to establish standards for selected ethnic food products that will assure food safety, harmonize with International Food Control laws, rules and regulations, and ensure better access to domestic and export market. FSTC is composed of representatives from the food industry particularly processors of the commodity under standardization, the academe, research and development institutes, concerned government agencies including BFAD and industry associations.

The BFAD Philippine National Standards (PNS) Committee was created under the Bureau Personnel Order (BPO) No. 9-D s. 2005 dated 13 January 2005 and as amended by BPO No. 63-A s. 2005 dated 09 May 2005, to fast track the finalization of Ethnic Food Products Standards and other priority food product standards endorsed to BFAD.

With the initiatives and efforts by the BFAD PNS Committee, Administrative Order (AO) No. 2005-0018 entitled “Philippine National Standard on Ethnic Food Products” was signed by Secretary Francisco T. Duque, III, MD, MSC of the Department of Health on 30 June 2005 and published last 10 August 2005 in Manila Times and Manila Standard Today. This Administrative Order covers the standards for (1) Dry Base Mixes for Soups and Sauces and (2) Sweet Preserves.

I. SCOPE

This standard prescribes quality requirements and specifications for dry base mixes for soups and sauces.

II. DEFINITION OF TERMS

For the purpose of this standard, the following terms shall mean:

Container means any form of packaging material, which completely or partially encloses the food (including wrappers). A container may enclose the food as a single item or several units or types of prepackaged food when such is presented for sale to the consumer.

Contaminants are any biological or chemical agent, foreign matter, or other substances that are not intentionally added to food, which may compromise food safety or suitability.

Dry Base mixes are powdered, granulated blends made from any combination of the following: flavorings, starches, flours, condiments, spices, edible fats, vegetables, meats, seafoods and other food ingredients and/or their extracts and permitted additives, intended for addition or incorporation to dish preparation(s).

Food is any substance, whether processed or semi-processed or raw which is intended for human consumption and including beverages, chewing gum and any substance, which has been used as an ingredient in the manufacture, preparation or treatment of "food."

Food Additives means any substance not normally consumed as a food by itself and not normally used as a typical ingredient of the food, whether or not it has nutritive value, the intentional addition of which to food for a technological (including organoleptic) purpose in the manufacturing, processing, preparation, treatment, packaging, transport or holding of such food results or maybe reasonably expected to result (directly or indirectly) in its or its by – product becoming a component of (or otherwise affecting the characteristic of) such food.

Food Standard is a regulatory guideline that defines the identity of a given food product (i.e. its name and the ingredients used for its preparation) and specifies the minimum quality factors and, when necessary, the required fill of container. It may also include specific labeling requirements other than or in addition to the labeling requirements generally applicable to all prepackaged foods.

Good Manufacturing Practices (GMP) is a quality assurance system aimed at ensuring that products are consistently manufactured, packed, repacked or held to a quality appropriate for the intended use. It is thus concerned with both manufacturing and quality control procedures.

Ingredient is any substance including, food additive used as a component in the manufacture or preparation of a food and present in the final product in its original or modified form.

Label includes any tag, brand, mark, pictorial, or other descriptive matter, written printed, marked, embossed or impressed on, or attached to a container of food.

Labeling means any written, printed or graphic matter (1) upon any article or any of its container or wrappers or (2) accompanying the packaged food.

Lot is food produced during a period of time and under more or less the same manufacturing condition indicated by a specific code.

Packaging is the process of packing that is part of the production cycle applied to a bulk product to obtain the finished product. Any material, including painted material, employed in the packaging of a product including any outer packaging used for transportation of shipment. Packaging materials are referred to as primary or secondary according to whether or not they are intended to be in direct contact with the product.

Processed Food refers to food that has been subjected to some degree of processing (e.g. milling, drying, concentration and canning, etc.), which partially or completely change the physico-chemical and/or sensory characteristics of the raw material.

Water Activity (a_W) is the ratio of water vapor pressure of the substance to the vapor pressure of pure water at the same temperature.

III. DESCRIPTION OF SPECIFIC PRODUCTS

A. PRODUCT DEFINITION

Dry Base mixes are powdered, granulated blends made from any combination of the following: flavorings, starches, flours, condiments, spices, edible fats, vegetables, meats, seafoods and other food ingredients and/or their extracts and permitted additives, intended for addition or incorporation to dish preparation(s) identified in Section V.

B. PRODUCT TYPES

1. Dry base mixes for broth are used to season and/or improve the flavor of soup dishes, e.g., *sinigang, tinola, nilaga.*
2. Dry base mixes for noodle products are used to season and/or improve the flavor of noodles, e.g. *canton, bihon* and *palabok.*

3. Dry base mixes for meat and seafood dishes are used to season and/or improve the flavor of meat and seafood dishes, e.g., *kare-kare, caldereta, menudo, adobo, sweet sour, escabeche, afritada,* gravy.
4. Dry base mixes for vegetables are used to season and/or improve the flavor of vegetables dishes, e.g., *chopsuey.*

IV. ESSENTIAL COMPOSITION AND QUALITY FACTORS

A. INGREDIENTS

Dry base mixes for soups and sauces may contain any of the following ingredients: salt*; spices+; sugar; dehydrated meat, seafood, fruits and vegetables; thickeners and stabilizers; flavor enhancers; natural and artificial colors and flavors; soy sauce powders; edible fats and oils; and, animal and plant protein preparations.

*** Must conform with the requirements for iodized salt, RA 8172, ASIN Law**
+ For irradiated spices and other irradiated ingredients, these must conform to BFAD-AO 152 s. 2004

B. PURITY REQUIREMENTS

All ingredients shall be clean, of optimum quality and fit for human consumption.

C. MOISTURE REQUIREMENTS

The product shall have a maximum a_W of 0.6.

D. PHYSICAL PROPERTIES

The products shall be free flowing without caking or lumping.

E. MICROBIOLOGICAL SPECIFICATIONS

Molds, yeasts and bacteria, if present, shall conform to the microbiological requirements as shown in Table 1 when tested in accordance with the specified test methods mentioned in Section IX.

Table 1. Microbiological limits per sampling

Tests	n	c	m	M
Standard Plate Count, cfu/g	5	2	10^4	10^6
Coliform, cfu/g	*5*	*3*	*10*	10^3
Yeast & Molds Count, cfu/g	5	3	10^2	10^4
*Salmonella** in 25 g sample	5	0	0	

n = no. of samples to be analyzed
c = no. of tolerable samples exceeding m but not M

m = minimum count
M = maximum count
*for products containing meat, poultry and seafood product ingredients

V. FOOD ADDITIVES

Food additives when used shall be in accordance with the regulations of the Bureau of Food and Drugs and may include the following:

	Maximum Allowable Level (on a product basis)
1. Acidulants	
1.1 Citric acid and its potassium and sodium salts	GMP
1.2 Fumaric acid	
1.3 Lactic acid	
1.4 Malic acid	
1.5 Tartaric acid	
2. Preservatives	
2.1 Sulfur dioxide	500 mg/kg
2.2 Benzoates	1,000 mg/kg
2.3 Sorbates	1,000 mg/kg
3. Anti-Caking Agents	
3.1 Magnesium carbonate	GMP
3.2 Silicon dioxide	10,000 mg/kg
3.3 Calcium polyphosphates	4,400 mg/kg
4. Colors	
4.1 Annatto extract	100 mg/kg
4.2 Caramel color	GMP
4.3 Carotenes	
4.4 Paprika	
4.5 Turmeric	
4.6 Tartrazine (FD&C #5)	500 mg/kg
4.7 Sunset yellow (FD&C #6)	
4.8 Allura red (FD&C #40)	
4.9 Chocolate brown, HT	
5. Flavoring Substances	
5.1 Natural flavors	GMP
5.2 Nature identical	
5.3 Artificial flavoring	
6. Flavor Enhancers	
6.1 Glutamic acid and its salt (calcium, potassium, sodium)	GMP
6.2 Inosinic acid, and sodium and potassium salts	

6.3 Guanylic acid, and sodium and potassium salts	)	
7. Emulsifiers, Stabilizers and Thickening Agents		
7.1 Sodium Carboxymethyl cellulose	)	
7.2 Gums (arabic gum)	)	GMP
7.3 Starch (including modified starch)	)	
7.4 Propylene glycol alginate		8,000 mg/kg
7.5 Lecithin	)	
7.6 Carrageenan	)	GMP
7.7 Agar	)	
7.8 Polysorbates		5000 mg/kg
7.9 Sorbitan monostearate		5000 mg/kg
8. Anti-oxidants		
8.1 Ascorbic acid, and potassium and sodium salts		GMP
8.2 BHT		100 mg/kg
8.3 BHA		300 mg/kg

9. Others (all others not included in the above list shall be allowed as carry-over, provided they are approved by the BFAD Regulation on Food Additives and shall be in accordance to the "Principle relating to the Carry-over of Food Additives into Foods" of the Codex.

VI. HYGIENE

The products covered by this standard shall be prepared in accordance with the Bureau Of Food and Drugs Regulation on Current Good Manufacturing Practice (cGMP) or the General Principles of Food Hygiene or other Codes of Hygienic Practice as recommended by the Codex Alimentarius Commission.

To the extent possible in GMP, the product shall be free from insects (whole or fragments), feathers, hair (human, rodent and other animals) and extraneous materials.

VII. CONTAMINANTS

	Maximum Level (Product Basis)
A. Lead	0.1 mg/kg
B. Aflatoxin (for products containing nuts)	10 µg/kg

VIII. PACKAGING AND LABELING

A. The product shall be packed in flexible packaging materials such as foil laminates, metallized films, or polyester films, and other suitable food packaging materials.

B. Each container shall be labeled and marked with the following information in accordance with BFAD Labeling Regulations:
   1. The name of the "Dry Base Mix" "_____Base Mix" or "_____Soup Mix" or "_____ Sauce Mix" or "_____Mix," or other description which is most appropriate.
   2. Name and address of the manufacturer and/or distributor of the food
   3. List of ingredients and food additives in descending order of proportion. Sulfites when present at 10 mg/kg or more shall be declared.
   4. Net content by weight in metric system. Other systems of measurement required by importing countries shall appear in parenthesis after the metric system unit.
   5. Lot Identification code
   6. The words "Product of the Philippines," if intended for export.
   7. Country of origin (for imported products)
   8. Open date marking shall be declared either as Best Before date/Consume Before date. If reference to the number of servings is made, it shall be in accordance with the manufacturer's recommendations. It may also include the English equivalent of the dish.
   9. Cooking instructions shall be indicated.

IX. METHODS OF SAMPLING AND ANALYSIS

A. Method of Sampling

Sampling shall be in accordance with the FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods ***(AQL=6.5)*** (see Annex A)

B. Measurement of Water Activity (a_W)

According to the AOAC (2004) Methods.

C. Enumeration of Standard Plate Count

According to the USFDA Bacteriological Analytical Manual (2001).

D. Enumeration of Yeast and Mold

According to the USFDA Bacteriological Analytical Manual (2001).

E. Isolation of *Salmonella*

According to the USFDA Bacteriological Analytical Manual (2001).

F. Enumeration of *Coliform*

According to the USFDA Bacteriological Analytical Manual (2001) or the procedure described by ICMSF (1988).

G. Determination of Sulfurous Acid (Total)

According to the AOAC (2004) Method using the Modified Monier-Williams Method.

H. Determination of *Benzoic Acid*

According to the AOAC (2004) Method using Spectrophotometer.

I. Determination of Lead

According to the AOAC (2004) Method using Atomic Absorption Spectrophotometer.

J. Determination of Aflatoxin

According to the AOAC (2004) Method using Thin Layer Chromatography.

X. LOT ACCEPTANCE

The product shall be considered acceptable when:

A. The average net weight of the product is not less than 95% of the declared net weight.

B. The final product meets the physico-chemical, microbiological, hygienic and packaging requirements, and does not exceed the tolerable levels set for food additives and other contaminants.

ANNEX A

FAO/WHO ALIMENTARIUS SAMPLING PLANS FOR PREPACKAGED FOODS (AQL = 6.5) CAC/RM 42-1969

Sampling Plan 1
Normal Operations
(Inspection Level 1, AQL = 6.5)

A. Net weight is equal to or less than 1 kg (2.2 lb)

Lot Size (N)	Sample size	Acceptance Number (C)
4,800 or less	6	1
4,801 – 24,000	13	2
24,001 – 48,000	21	3
48,001 – 84,000	29	4
94,001 – 144,000	48	6
144,001 – 240,000	84	9
More than 240,000	126	13

B. Net weight is greater than 1 kg (2.2. lb) but not greater than 4.5 kg (10 lb)

Lot Size (N)	Sample size	Acceptance Number (C)
2,400 or less	6	1
2,401 – 15,000	13	2
15,001 – 24,000	21	3
24,001 – 42,000	29	4
42,001 – 72,000	48	6
72,001 – 120,000	84	9
More than 120,000	126	12

C. Net weight is greater than 4.5 kg (10 lb)

Lot Size (N)	Sample size	Acceptance Number (C)
600 or less	1	1
601 – 2,000	13	2
2,001 – 7,200	21	3
7,201 – 15,000	29	4
15,001 – 24,000	48	6
24,001 – 42,000	84	9
More than 42,000	126	13

Sampling Plan 2
In Case of Disputes
(Inspection Level 2, AQL = 6.5)

A. Net weight is equal to or less than 1 kg (2.2 lb)

Lot Size (N)	Sample size	Acceptance Number (C)
4,800 or less	13	2
4,801 – 24,000	21	3
24,001 – 48,000	29	4
48,001 – 84,000	48	6
94,001 – 144,000	84	9
144,001 – 240,000	126	13
More than 240,000	200	19

B. Net weight is greater than 1 kg (2.2. lb) but not greater than 4.5 kg (10 lb)

Lot Size (N)	Sample size	Acceptance Number (C)
2,400 or less	13	2
2,401 – 15,000	21	3
15,001 – 24,000	29	4
24,001 – 42,000	48	6
42,001 – 72,000	84	9
72,001 – 120,000	126	13
More than 120,000	200	19

C. Net weight is greater than 4.5 kg (10 lb)

Lot Size (N)	Sample size	Acceptance Number (C)
600 or less	13	2
601 – 2,000	21	3
2,001 – 7,200	29	4
7,201 – 15,000	48	6
15,001 – 24,000	84	9
24,001 – 42,000	126	13
More than 42,000	200	19

Source : FAO/WHO Codex Alimentarius Commission Sampling Plans for Pre-Packaged Foods (AQL=6.5) (CAC/RM42 – 1969)

FORMULATING BODY

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3. Ms. Soccorro Ignacio, HEPO IV
4. Ms. Charina May T. Tandas, Food-Drug Regulation Officer III
5. Ms. Almueda C. David, Food-Drug Regulation Officer IV
6. Ms. Maria Theresa C. Cerbolles, Food-Drug Regulation Officer II
7. Ms. Josephine F. Gagarin, Food-Drug Regulation Officer I
8. Ms. Carmencita S. Masangkay, Food-Drug Regulation Officer I

II. TECHNICAL COMMITTEE ON FOOD STANDARDS

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3. Prof. Teresita P. Acevedo, UPD
4. Ms. Carmina J. Parce, BFAD
5. Mr. Andrew delos Angeles, BFAD
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21. Ms. Charito M. Villaluz, ITDI-DOST
22. Ms. Josefina L. Diaz, ITDI-DOST
23. Ms. Divinagracia R. Olaivar, ITDI-DOST

Manufacturers:

1. California Manufacturing Co., Inc.
2. Marigold Commodities Corp.
3. Universal Foods Corp.
4. Jonas International Phil., Inc.
5. Republic Flour Mills
6. Delicious Foods Corp.
7. Florence Foods Corp.
8. Pacific Isles International Trading Corp.
9. Reysons Food Processing
10. ERMA Industries
11. Lorenzana Foods Corp.
12. Dalisay Sweets International
13. Golden Hands Corp.
14. SAFI-UFC
15. Foodsphere Inc.
16. YS Commercial Enterprises
17. Karexx International
18. Fil-Choice Inc.
19. Escaba Foods
20. Mofels