

EE-B-575E
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SUPERSEDING
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FEDERAL SPECIFICATION

BOUILLON (SOUP AND GRAVY BASES)

This specification is approved by the U.S. Department of Agriculture for use by all Federal agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers cubed and granulated vegetable protein bouillon and powdered, cubed, and paste, beef, chicken, and ham flavored soup and gravy bases, for use by all Federal agencies.

1.2 Classification.

1.2.1 Types, classes, and styles. Bouillon (soup and gravy bases) shall be of the following types, classes, and styles, as specified (see 6.1).

Type I - Beef flavor

Class 1 - Regular

Style A - Powdered

Style B - Cubed

Style C - Paste

Class 2 - Low sodium

Style A - Powdered

Style B - Cubed

Style C - Paste

Type II - Chicken flavor

Class 1 - Regular

Style A - Powdered

Style B - Cubed

Style C - Paste

FSC 8935/8940

DISTRIBUTION STATEMENT A. Approved for public release; distribution is

unlimited.
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Class 2 - Low Sodium

Style A - Powdered

Style B - Cubed

Style C - Paste

Type III - Ham flavor

Class 1 - Regular

Style A - Powdered

Type IV - Vegetable protein bouillon

Class 1 - Regular

Style B - Cubed

Style D - Granular

2. APPLICABLE DOCUMENTS

2.1 Government publications. The following documents, of the issues in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

Federal Specifications:

TT-C-495 - Coating, Exterior, for Tinned Food Cans
PPP-B-566 - Boxes, Folding, Paperboard
PPP-B-636 - Boxes, Shipping, Fiberboard
PPP-C-29 - Canned Subsistence Items, Packaging of
PPP-C-96 - Cans, Metal, 28 Gage and Lighter
PPP-G-460 - Glass Containers, Filled and Closed, Packaging and Packing of

Federal Standard:

FED-STD-123 - Marking for Shipment (Civil Agencies)

(Activities outside the Federal Government may obtain copies of Federal specifications, standards, and commercial item descriptions as outlined under General Information in the Index of Federal Specifications, Standards, and Commercial Item Descriptions. The Index, which includes cumulative bimonthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-0001.)

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(Single copies of this specification, other Federal specifications, and commercial item descriptions required by activities outside the Federal Government for bidding purposes are available without charge from the General Services Administration Business Service Centers in Boston, MA; New York, NY; Philadelphia, PA; Washington, DC; Atlanta, GA; Chicago, IL; Kansas City, MO; Fort Worth, TX; Denver, CO; San Francisco, CA; Los Angeles, CA; and Seattle, WA.)

(Federal Government activities may obtain copies of Federal standardization documents and the Index of Federal Specifications, Standards, and Commercial Item Descriptions from established distribution points in their agencies.)

Military Specifications:

- MIL-L-1497 - Labeling of Metal Cans for Subsistence Items
- MIL-L-35078 - Loads, Unit: Preparation of Semiperishable
Subsistence Items; Clothing, Personal Equipment and
Equipage; General Specification For

Military Standards:

- MIL-STD-105 - Sampling Procedures and Tables for Inspection
by Attributes
- MIL-STD-129 - Marking for Shipment and Storage

(Copies of military specifications and standards required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

Federal Regulations

U.S. Department of Health and Human Services

Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder
(21 CFR Parts 1-199)

(Application for copies should be addressed to the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-0001.)

U.S. Department of Agriculture (USDA)

Meat and Poultry Inspection Regulations

(Application for copies should be addressed to the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-0001.)

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2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal shall apply.

National Motor Freight Traffic Association, Inc., Agent

National Motor Freight Classification

(Application for copies should be addressed to the American Trucking Associations, Inc., Traffic Department, 2200 Mill Road, Alexandria, VA 22314.)

Uniform Classification Committee, Agent

Uniform Freight Classification

(Application for copies should be addressed to the Uniform Classification Committee, Room 1120, 222 South Riverside Plaza, Chicago, IL 60606.)

American Association of Cereal Chemists

Approved Methods of the American Association of Cereal Chemists

(Application for copies should be addressed to the American Association of Cereal Chemists, 3340 Pilot Knob Road, St. Paul, MN 55121.)

Association of Official Analytical Chemists

Official Methods of Analysis of the Association of Official Analytical Chemists

(Application for copies should be addressed to the Association of Official Analytical Chemists, 2200 Wilson Boulevard, Suite 400-CD, Arlington, VA 22201-3301.)

National Academy of Sciences

Food Chemicals Codex

(Application for copies should be addressed to the National Academy Press, 2101 Constitution Ave., N.W., Washington, DC 20418.)

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American Oil Chemists' Society**Official and Tentative Methods of the American Oil Chemists**

(Application for copies should be addressed to the American Oil Chemists' Society, 508 South Sixth Street, Champaign, IL 61820.)

2.3 **Order of precedence.** In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 **Bid sample approval.** Unless otherwise specified (see 6.1), three 1-pound samples of the product that the contractor proposes to furnish shall be packaged in cans, which shall then be hermetically sealed and submitted to the contracting officer prior to the bid opening. One sample of those selected by the contracting officer shall be used to determine bid sample approval. The remaining two samples submitted by the successful bidder shall be used by the inspection service as approved reference samples for examination of deliveries. The approval of any bid samples for palatability will not constitute approval of the samples as meeting the requirements of this specification.

3.2 **Ingredients.** All ingredients shall be clean, sound, wholesome, free from foreign material, evidence of rodent or insect infestation, extraneous material, off-odors, off-flavors, and off-colors.

3.2.1 **Salt.** Salt shall be noniodized, white, refined sodium chloride, with or without anticaking agents and shall comply with the purity standards for sodium chloride of the Food Chemicals Codex.

3.2.2 **Sugar.** Sugar shall be white, refined, granulated cane or beet sugar or a combination thereof.

3.2.3 **Sugar, brown.** Brown sugar shall be derived from cane or beet sugar having a soft grain and covered with a film of cane molasses-flavored syrup.

3.2.4 **Chicken fat.** Chicken fat shall be the product obtained by rendering the wholesome chicken fat of current production under the supervision of the Food Safety and Inspection Service (FSIS), USDA. The rendered fat may be protected by the types and amounts of antioxidants approved by FSIS, USDA. It shall have a peroxide value of not more than 15 milliequivalents per kilogram of chicken fat.

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3.2.5 Dried chicken meat solids. The dried chicken meat solids shall be produced after award of bouillon (soup and gravy bases) contract in a plant operating under supervision of FSIS, USDA. The dried chicken meat solids can be mechanically deboned meat (MDM) and shall have good flavor and odor, and shall be reduced to a fine powder to provide proper distribution in the finished product.

3.2.6 Hydrogenated vegetable shortening. The shortening shall be refined hydrogenated vegetable oil of 100 hours or greater stability as determined by the Active Oxygen Method (AOM).

3.2.7 Hydrolyzed vegetable protein (for Types I, II, and IV). The hydrolyzed vegetable protein shall be obtained by the hydrolysis of any one or any combination of corn, soybean, wheat, or yeast proteins from which none of the monosodium glutamate has been extracted during processing, and shall have a characteristic odor and flavor. The salt-free solids shall be not less than 48.0 percent. The salt content shall be not less than 22.0 nor more than 50.0 percent. Ammonium chloride shall be not more than 1.5 percent. The pH of a 3-percent solution shall be not less than 5.0 nor more than 6.3. The hydrolyzed protein shall be soluble in water at 90°F to the extent of not less than 5 grams in 100 milliliters (mL).

3.2.8 Monosodium glutamate. Monosodium glutamate shall conform to Food Chemicals Codex.

3.2.9 Onions, dehydrated, powdered. Dehydrated powdered onions shall have the typical odor and flavor of fresh onions when 1 ounce of powdered onion is mixed with 2 ounces of water (approximately 75°F). Alternatively, when the natural onion oil is used, it shall be spray dried, encapsulated with gum arabic, and diluted with a dextrose carrier.

3.2.10 Starch. Starch shall be any type of starch that will give the desired results, consistent with the requirements of 3.5.

3.2.11 Dextrin. Dextrin shall be the soluble carbohydrate derived from the partial hydrolysis of starch by dilute acids, enzymes, or heat.

3.2.12 Spices and soluble spice flavorings. Spices and spice flavorings shall be true to name and possess characteristic odors and flavors of the type normally used in this product.

3.2.13 Celery, soluble. Soluble celery flavoring shall be prepared by properly blending and dispersing a minimum of 4 percent of total extractives of the dried fruit of Apium graveolens L. and soluble, dry, edible carrier. The flavoring shall possess a clean, celery-like aroma with a slightly bitter taste. It shall be free flowing, free from caking, and yellowish gray in color.

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3.2.14 Beef extract. The beef extract may be imported or may originate in domestic establishments regularly operated under the supervision of FSIS, USDA. The imported product shall be subject to the current regulations of FSIS, USDA. The beef extract shall contain not more than 18.0 percent moisture, not more than 25.0 percent ash, not more than 5.0 percent salt (as NaCl), not less than 7.0 percent total creatine and creatinine, and not less than 8.0 percent total nitrogen. The beef extract shall show no trace of nitrates or nitrites. The beef extract shall have a characteristic flavor and odor and shall not be scorched or burned.

3.2.15 Hydrolyzed vegetable protein with added smoke flavor (Type III only). The product shall be obtained by the hydrolysis of any one or any combination of corn, soybean, wheat, or yeast proteins from which none of the monosodium glutamate has been extracted during processing, and shall have a characteristic odor and flavor. Natural or artificial smoke flavor shall be added at the levels sufficient to impart a pleasing smoke flavor when used at the formula level designated for the product. The salt-free solids shall be not less than 50.0 percent. The pH of a 3-percent solution shall be not less than 4.7 nor more than 6.3. The mixture of hydrolyzed protein and smoke flavor shall be soluble in water at 90°F to the extent of not less than 5 grams in 100 mL.

3.2.16 Hydrolyzed and unhydrolyzed vegetable protein (Type III only). The product shall be obtained from any one or any combination of corn, soybean, wheat, or yeast proteins either hydrolyzed or unhydrolyzed. No portion of the monosodium glutamate may be extracted during processing. The vegetable protein shall have a characteristic odor and a flavor free from objectionable bitterness. The pH of a 3-percent solution shall be not less than 4.9 nor more than 6.3.

3.2.17 Caramel coloring. Caramel coloring shall be a dry, readily soluble brown powder obtained from sucrose or glucose.

3.2.18 Autolyzed yeast. Autolyzed yeast shall be an extract prepared from whole fresh Saccharomyces cerevisiae or Saccharomyces carlbergensis (either primary dried or debittered brewer's yeast) solely by the action of those proteolytic enzymes naturally present in the fresh yeast. It shall have a typical autolyzed yeast flavor and be free from bitter taste. Sodium chloride may be added in the initial plasmolysis or subsequent processing to facilitate flavor development. Total nitrogen shall be not less than 10.0 percent on a salt-free solids basis. Amino nitrogen shall be not less than 25.0 percent of the total nitrogen. The product shall be soluble in water at 90°F to the extent of not less than 5 grams of dry substance in 100 mL. The pH in a 3-percent solution shall be not less than 5.1 nor more than 6.1.

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3.2.19 Beef fat. The fat shall be oleo oil derived from pure beef fat produced under the supervision of FSIS, USDA. Antioxidants approved by FSIS, USDA may be added during manufacture. Oleo oil shall have a stability of not less than 100 hours AOM.

3.2.20 Disodium guanylate and disodium inosinate. Disodium guanylate and disodium inosinate shall be free-flowing powder produced by enzymatic treatment of yeast ribonucleic acid. In addition, disodium guanylate and disodium inosinate shall comply with the additive requirements of the U.S. Food, Drug, and Cosmetic Act and regulations promulgated thereunder.

3.2.21 Silicon dioxide. Silicon dioxide anticaking agent shall conform to the Food Chemicals Codex.

3.3 Formulations

3.3.1 Soup and gravy base (Types I, II, and III, Class 1). Class 1 of Types I, II, and III soup and gravy bases for military agencies shall be formulated as follows:

<u>Percent by weight</u>			
<u>Ingredients</u>	<u>Type I, Class 1 beef flavored</u>	<u>Type II, Class 1 chicken flavored</u>	<u>Type III, Class 1 ham flavored</u>
Salt	--	Not more than 35.0 percent	--
Chicken fat	--	Not less than 5.0 percent	--
Dried chicken meat solids	--	Not less than 1.5 percent	--
Hydrolyzed vegetable protein	Not less than 18.0 percent	--	--
Beef extract or beef extract replacement 1/	Not less than 11.5 percent	--	--

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Percent by weight

<u>Ingredients</u> (continued)	<u>Type I, Class 1</u> <u>beef flavored</u>	<u>Type II, Class 1</u> <u>chicken flavored</u>	<u>Type III, Class 1</u> <u>ham flavored</u>
Hydrolyzed vegetable protein with added smoke flavor	--	--	Not less than 15.0 percent
Hydrolyzed and/or unhydrolyzed vegetable protein	--	--	Not less than 15.0 percent
Monosodium glutamate <u>2/</u>	Not more than 3.3 percent (added)	Not more than 5.0 percent (added)	Not more than 6.0 percent (added)
Disodium guanylate and inosinate	Not less than 0.1 percent	Not less than 0.1 percent	Not less than 0.1 percent
Onion powder or Onion oil	Not less than 6.5 percent Not less than 5.2 percent	Not less than 2.0 percent Not less than 0.8 percent	Not less than 7.0 percent Not less than 2.8 percent
Autolyzed yeast (salt-free solids)	Not less than 3.0 percent	--	--
Hydrogenated vegetable shortening	Not more than 3.0 percent	--	Not more than 4.0 percent
Sugar	Not more than 12.0 percent	Not more than 10.0 percent	Not more than 8.0 percent
Brown sugar	--	--	Not more than 12.0 percent
Starches or dextrins (or a combination thereof)	Not more than 7.5 percent	Not more than 18.0 percent	Not more than 11.0 percent
Soluble celery flavoring	Not more than 12.0 percent	--	--

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Percent by weight

<u>Ingredients</u> (continued)	<u>Type I, class 1 beef flavored</u>	<u>Type II, class 1 chicken flavored</u>	<u>Type III, class 1 ham flavored</u>
Caramel coloring	Not more than 1.5 percent	--	--
Salt, spices, spice extractives, disodium guanylate, disodium inosinate, imitation beef flavoring, or other seasonings, except added ammonium chloride	To make up to 100 percent	--	To make up to 100 percent
Silicon dioxide	1.5 to 2.0 percent	1.5 to 2.0 percent	1.5 to 2.0 percent
Hydrogenated vege- table fat, hydrolyzed protein, spices, flavorings, or other seasonings ^{3/}	--	To make up to 100 percent	--

- 1/ Beef extract replacement shall be a suitable, high quality, hydrolyzed vegetable protein (or combination of hydrolyzed vegetable proteins) which meets the requirements of 3.2.7 and is specifically designed to be used as a substitute for natural beef extract. It shall be used at a level (not less than 11.5 percent) which will result in a finished product having equal or better flavor characteristics than the product made with natural beef extract.
- 2/ Monosodium glutamate available in hydrolyzed vegetable protein during the normal manufacturing process of hydrolyzed vegetable protein shall not be calculated as the required monosodium glutamate specified in the formulation.
- 3/ Turmeric, when used to attain a desirable yellow color, shall be of the alleppy type.

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3.3.2 Soup and gravy base (Types I and II, Class 1). Class 1 of Types I and II soup and gravy bases for civil agencies shall be prepared according to the following formulations.

Percent by weight

<u>Ingredients</u>	<u>Type I, Class 1 Styles A and B</u>	<u>Type I, Class 1 Style C</u>	<u>Type II, Class 1 Styles A and B</u>	<u>Type II, Class 1 Style C</u>
Salt	--	--	--	Not more than 35.0 percent
Chicken fat	--	--	--	Not less than 5.0 percent
Dried chicken meat solids	--	--	Not less than 2.0 percent	--
Hydrolyzed vegetable protein	Not less than 18.0 percent	--	--	--
Beef extract or beef extract replacement 1/	Not less than 11.0 percent	--	--	--
Monosodium glutamate	Not more than 6.0 percent (added)	--	--	Not more than 10.0 percent (added)
Onion powder	Not less than 6.5 percent	--	Not less than 2.0 percent	--
Autolyzed yeast (salt-free solids)	Not less than 3.0 percent	--	--	--
Beef fat	Not more than 5.0 percent	Not more than 20.0 percent	--	--
Sugar	Not more than 12.0 percent	--	Not more than 10.0 percent	--

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Percent by weight

<u>Ingredients</u> (continued)	Type I, Class 1	Type I, Class 1	Type II, Class 1	Type III, Class 1
	<u>Styles A and B</u>	<u>Style C</u>	<u>Styles A and B</u>	<u>Style C</u>
Starches or dextrins (or a combination thereof)	--	--	Not more than 10.0 percent	--
Soluble celery flavoring	Not more than 12.0 percent	--	--	--
Caramel coloring	Not more than 1.5 percent	--	--	--
Salt, spices, spice extractives, flavorings, or other seasonings, except added ammonium chloride (salt shall not exceed 55 percent)	To make up to 100 percent	To make up to 100 percent	--	--
Hydrogenated vegetable fat, hydrolyzed protein, spices, flavorings, and other seasonings	--	--	To make up to 100 percent	To make up to 100 percent

- 1/ Beef extract replacement shall be a high quality, hydrolyzed vegetable protein (or combination of hydrolyzed vegetable protein) which meets the requirements of 3.2.7 and is specifically designed to be used as a substitute for natural beef extract. It shall be used at a level (not less than 11 percent) which will result in a finished product having equal or better flavor characteristics than the product made with natural beef extract.

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3.3.3 Soup and gravy base (Types I and II, Class 2, all styles). The soup and gravy bases, Types I and II, Class 2, all styles, shall be formulated in such a manner that the sodium content shall conform to the requirements of 3.5.2.

3.3.4 Vegetable protein bouillon (Type IV, Class 1, Styles B and D). Vegetable protein bouillon product shall be composed of salt, autolyzed yeast, hydrolyzed vegetable protein, monosodium glutamate, hydrogenated vegetable fat, sugar, spices or spice extractives, other seasonings, and caramel coloring. The mixture shall consist of approximately 10 percent of autolyzed yeast and not less than 25 percent of hydrolyzed vegetable protein.

3.4 Processing. Drying of components singly or in combination prior to final mixing is permissible.

3.5 Finished product requirements.

3.5.1 Physical requirements.

3.5.1.1 Style A. Style A product shall be a uniform mixture of the ingredients specified in 3.3 for the applicable types and classes of the product. The mixture shall be free of lumps that cannot be broken by light finger pressure. Not less than 100 percent shall pass through a U.S. Standard No. 5 sieve.

3.5.1.2 Style B. Style B product shall be in the form of compressed cubes of the ingredients specified in 3.3 for the applicable types and classes of the product. One hundred wrapped cubes shall weigh not less than 14 ounces or more than 16 ounces.

3.5.1.3 Style C. Style C product shall be a uniformly blended product in paste form of the ingredients specified in 3.3 for the applicable types and classes of the product.

3.5.1.4 Style D. Style D product shall be a uniformly blended product in granular form of the ingredients specified in 3.3 for the Type IV product. One hundred percent shall pass through a U.S. Standard No. 5 sieve and 100 percent shall be retained on a U.S. Standard No. 10 sieve.

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3.5.2 Analytical requirements. Analytical requirements for all types and classes (listing percent by weight of ingredients) for civil and military agencies as applicable shall be as follows:

	<u>Civil agencies</u>	<u>Military agencies</u>
<u>Type I. beef flavor, Class 1, Styles A and B</u>		
Salt (calculated as NaCl)	Not more than 45.0 percent	Not more than 42.0 percent
Moisture	Not more than 2.0 percent	Not more than 2.25 percent
Sugar (as invert)	Not more than 33.0 percent	Not more than 33.0 percent
Fat	Not more than 10.0 percent	Not more than 5.0 percent
Total nitrogen	Not less than 2.5 percent	Not less than 1.5 percent
Total solids	Not less than 98.0 percent	Not less than 98.0 percent
<u>Type I. beef flavor, Class 1, Style C</u>		
Salt (calculated as NaCl)	Not more than 45.0 percent	--
Moisture	Not more than 2.0 percent	--
Fat	Not more than 28.0 percent	--
Total nitrogen	Not less than 2.5 percent	--
Total solids	Not less than 98.0 percent	--

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	<u>Civil agencies</u>	<u>Military agencies</u>
<u>Type II. chicken flavor. Class 1. Styles A and B</u>		
Salt (calculated as NaCl)	Not more than 45.0 percent	Not more than 39.0 percent
Moisture	Not more than 2.0 percent	Not more than 2.5 percent
Fat	Not more than 10.0 percent	Not more than 10.0 percent
Sugar (as invert)	Not more than 30.0 percent	Not more than 30.0 percent
Total nitrogen	Not less than 1.5 percent	Not less than 0.7 percent
<u>Type II. chicken flavor. Class 1. Style C</u>		
Salt (calculated as NaCl)	Not more than 45.0 percent	--
Moisture	Not more than 2.0 percent	--
Fat	Not more than 20.0 percent	--
Total nitrogen	Not less than 1.5 percent	--
<u>Type III. ham flavor. Class 1. Style A</u>		
Salt (calculated as NaCl)	--	Not more than 32.0 percent
Moisture	--	Not more than 2.5 percent
Fat	--	Not more than 5.0 percent

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	<u>Civil agencies</u>	<u>Military agencies</u>
<u>Type III. ham flavor. Class 1. Style A</u> (continued)		
Sugar (as invert)	--	Not more than 32.0 percent
Total nitrogen	--	Not less than 1.5 percent
<u>Type IV. vegetable protein. bouillon. Class 1. Styles B and D</u>		
Salt (calculated as NaCl)	Not more than 55.0 percent	--
Fat	Not more than 10.0 percent	--
Total nitrogen	Not less than 1.5 percent	--
Total solids	Not less than 96.0 percent	--
<u>Type I. beef flavor. Class 2. Styles A and B</u>		
Sodium	Not more than 0.40 percent	--
Moisture	Not more than 3.3 percent	--
Fat	Not more than 9.0 percent	--
<u>Type I. beef flavor. Class 2. Style C</u>		
Sodium	Not more than 0.40 percent	--
Moisture	Not more than 3.3 percent	--
Fat	Not more than 25.0 percent	--

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	<u>Civil agencies</u>	<u>Military agencies</u>
<u>Type II, chicken flavor, Class 2, Styles A and B</u>		
Sodium	Not more than 0.10 percent	--
Moisture	Not more than 3.3 percent	--
Fat	Not more than 11.0 percent	--
<u>Type II, chicken flavor, Class 2, Style C</u>		
Sodium	Not more than 0.10 percent	--
Moisture	Not more than 3.3 percent	--
Fat	Not more than 24.0 percent	--

3.6 Prepared product. When prepared in accordance with 3.6.1 or 3.6.2, as applicable, the finished product shall readily dissolve when stirred, except that Type III prepared product may have a maximum sedimentation of 1/8 inch when tested in accordance with 4.5.1. The prepared product shall have the odor, flavor, and appearance of the pertinent type and class of product and shall be free from rancid, toasted, sour, caramelized, or other objectionable odor or flavor.

3.6.1 Military agencies. A single serving shall be prepared by adding 1/4 ounce, by weight, of product to 8 ounces of freshly boiled water.

3.6.2 Civil agencies. A single serving shall be prepared in accordance with the labeled direction for use.

3.6.3 Palatability. The finished product shall be equal to or better than the approved preproduction sample (see 6.1) in palatability and overall appearance.

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3.7 Plant qualification. The product shall be prepared, processed, and packaged in establishments meeting the requirements of Title 21, Code of Federal Regulations, Part 110, "Current Good Manufacturing Practice in Manufacturing Processing, Packaging or Holding of Human Foods", and the plant sanitation requirements of the appropriate Government inspection agency.

3.8 Federal Food, Drug, and Cosmetic Act. All deliveries shall conform in every respect to the provisions of the Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder.

4. QUALITY ASSURANCE PROVISIONS

4.1 Contractor's responsibility. Inspection and acceptance by the USDA shall not relieve the contractor of obligation and responsibility to deliver a product complying with all the requirements of this document. The contractor shall assure product compliance prior to submitting the product to the USDA for any inspection.

4.2 Inspection and certification. Product acceptability shall be determined by the USDA. The USDA will determine the degree of inspection necessary to assure compliance with the requirements of this document.

4.3 Quality conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

4.3.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all the requirements of referenced specifications and standards unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase document.

4.3.1.1 Ingredient and component examination. Conformance of ingredients and components to identity, condition, and other requirements specified in 3.2 shall be certified by the ingredient supplier or ingredient manufacturer, and compliance shall be verified by examination of pertinent labels, markings, U.S. Grade Certificates, certificates of analyses, or other such valid documents acceptable to the inspection agency. If necessary, each ingredient shall be examined organoleptically or inspected according to generally recognized test methods such as the standard methods described in the Official Methods of Analysis of the Association of Official Analytical Chemists and in the Approved Methods of the American Association of Cereal Chemists, to determine conformance to the requirements. Any nonconformance to any identity, condition, or other requirement shall be cause for rejection of the ingredient or component lot or of any involved product.

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4.3.2 In-process examination. In-process examination shall be performed to determine conformance to formulation requirements. Any nonconformance revealed by actual examination or by review of records of formulation or other valid documents shall be cause for rejection of the involved product.

4.3.3 Net weight inspection (Styles A, C, and D). The filled primary containers shall be inspected for net weight in accordance with Table I. Each type, class, and style of product shall be examined as a separate lot. The lot size shall be expressed in units of primary containers. The sample unit shall be one filled primary container. The inspection level shall be S-3 and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 2.5.

TABLE I. Net weight defects

<u>Category</u>	<u>Defect</u>
<u>Minor</u>	
201	More than 5 percent under specified net weight (for containers required to have 8 ounces or less) $\frac{1}{16}$
202	More than 2 percent under specified net weight (for containers required to have 1 pound or more) $\frac{1}{8}$

$\frac{1}{16}$ Report results to nearest $\frac{1}{16}$ ounce for "8 ounce" containers; and nearest $\frac{1}{8}$ ounce for containers required to have 1 pound or more. (Lot shall be rejected if sample data indicate a lot average net weight less than specified net weight.)

4.3.4 Weight of 100 wrapped cubes (Style B). As specified in 5.1.2.3, 25 or 50 wrapped cubes shall be packed into a primary container. Select 52 (if packed 25 per container) or 26 (if packed 50 per container) primary containers from the lot to form 13 sample units of 100 wrapped cubes. Weigh each sample unit (100 wrapped cubes). Any sample unit weighing less than 14 ounces or more than 16 ounces shall be classified as a minor defect. Finding more than one minor defect, or if the sample average is less or more than specified, shall be cause for rejection of the lot.

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4.3.5 Product examination. The prepared and finished product shall be examined for the defects listed in Table II. The lot size shall be expressed in units of primary containers. The sample unit shall be one filled envelope or 4 ounces from a can or jar. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 1.5 for major defects.

TABLE II. Product defects 1/ 2/

Category	Defect
<u>Major</u>	<u>Finished product</u>
101	Not uniformly mixed (powdered, granular, or paste)
102	Not free from lumps that do not break up with light finger pressure (powdered product)
103	Cubes not completely wrapped
	<u>Prepared product</u> 3/
104	Does not dissolve readily when stirred (except Type III product)
105	Palatability not equal to bid sample
106	Odor or appearance not characteristic of the product

- 1/ The presence of rancid, sour, scorched, toasted, caramelized, or other objectionable odor or flavor, or presence of any foreign material (for example, insects, filth, glass, wood, metal, paint) shall be cause for rejection of the lot.
- 2/ Product not equal to or better than the approved bid sample (see 6.1) in palatability and overall appearance shall be cause for rejection of the lot. (This comparison shall be performed only when deemed necessary by a USDA agent.)
- 3/ Make one individual serving per sample unit in accordance with 3.6.1 or 3.6.2, as applicable.

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4.3.5.1 Examination of particle size for finished product (Style A and Style D). The finished product shall be examined for particle size in accordance with sieving procedures detailed in 4.4.1. The sample shall be a 100-gram composite derived from the number of primary containers (except envelopes) indicated by inspection level S-2. Lot size shall be expressed in terms of the primary containers. A sufficient quantity of 7-gram envelopes shall be utilized to form a 100-gram composite. Less than 100 percent (to nearest whole percent) passing through the specified sieve shall be cause for rejection of the lot.

4.3.6 End item testing. The finished product shall be tested to determine conformance to the analytical requirements listed in the tabulated data of 3.5.2. In addition, Type III product shall be tested to determine conformance to the sedimentation requirement of 3.6. Test procedures shall be in accordance with 4.4. The sample for testing (except envelopes) shall be an 8-ounce composite derived from the number of primary containers indicated by inspection level S-2. Lot size shall be expressed in terms of the primary containers. The sample for product in envelopes shall be a composite derived from 32 envelopes. Each result shall be reported to the same decimal point as specified for the pertinent requirement except for sedimentation which shall be reported as pass or fail. A test failure shall be cause for rejection of the lot.

4.3.7 Packaging inspection.

4.3.7.1 Examination of intermediate paperboard carton. The intermediate paperboard carton shall be examined for the defects specified in Table III. The lot size shall be expressed in units of paperboard cartons. The sample unit shall be one filled and closed intermediate paperboard carton. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5 for minor defects.

TABLE III. Intermediate box defects

Category	Defect
<u>Minor</u>	
201	Box not as specified
202	Box dirty
203	Box not securely closed with tape

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TABLE III. Intermediate box defects (continued)

<u>Category</u>	<u>Defect</u>
<u>Minor</u>	
204	Arrangement of envelopes within box not as specified
205	Box divider missing
206	Marking on intermediate box missing, incorrect, or illegible

4.3.7.2 Examination of count of envelopes or cubes. The end item shall be examined for the defects listed in Table IV. The lot size shall be expressed in units of cartons, bulk-packed shipping containers, or cans. The sample unit shall be one carton, bulk-packed shipping container, or can. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5 for minor defects.

TABLE IV. Envelopes and cube count defects

<u>Category</u>	<u>Defect</u>
<u>Minor</u>	
201	Less than 100 cubes per can
202	Less than 200 envelopes per intermediate box (Level A or Level B)
203	Less than 1,000 envelopes per-bulk packed shipping container or box (Level C)

4.3.7.3 Examination of jars and envelopes for military agencies. The end item shall be examined for the defects listed in Table V. The lot size shall be expressed in jars or envelopes. The sample unit shall be one filled and closed jar or one filled and sealed envelope. The inspection level for jars shall be I and the AQL, expressed in terms of defects per hundred units, shall be 0.25 for Major A defects, 1.5 for Major B defects, and 6.5 for minor

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defects. The inspection level for envelopes shall be II and the AQL, expressed in terms of defects per hundred units, shall be 0.65 for Major B defects, and 2.5 for minor defects.

TABLE V. Jar and envelope (Military) defects 1/

<u>Category</u>			<u>Defect</u>
<u>Major A</u>	<u>Major B</u>	<u>Minor</u>	
			<u>Jars</u>
101			Broken or cracked
	151		Chipped or thin spot
	152		Pitted rust on cap 2/
	153		Cap loose 3/
			<u>Jars</u>
		201	Cap cross-threaded
		202	Not clean
	154		Cap liner missing or does not form a tight seal against mouth of jar
			<u>Envelopes</u>
	155		Style or size (length or width) not as specified 4/
	156		Color not as specified
	157		Any opening in the envelope; e.g., tear, hole, open seam/seal, or sifter 5/
	158		Foreign odor
	159		Not clean 6/
		203	Crushed or misshaped, resulting in two or more creases in the product area of the envelope

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TABLE V. Jar and envelope (Military) defects 1/ (continued)

<u>Category</u>			<u>Defect</u>
<u>Major A</u>	<u>Major B</u>	<u>Minor</u>	
			<u>Jars and envelopes</u>
	160		Nomenclature missing, incorrect, or illegible
	161		Directions for use (when required) missing, incorrect, or illegible
		204	Other required labeling information missing, incorrect, or illegible
		205	Labeling method not as specified

- 1/ The presence of insect or rodent infestation shall be cause for rejection of the lot.
- 2/ Rust that can be removed by wiping with a soft cloth shall not be considered pitted or rusty.
- 3/ For determining tightness of screw-type cap, the following is applicable: Place the jar upright on top of filled and closed shipping container. Grasp the sides of the cap firmly with fingertips of one hand and turn cap gently counter-clockwise with a minimum of downward pressure for one complete revolution. If cap turns and jar remains stationary, a defect shall be scored.
- 4/ Measurement device shall be calibrated in 1/16-inch increments.
- 5/ A sifter is an envelope which loses any amount of product when shaken vigorously.
- 6/ Outer packaging shall be free from foreign matter which is unwholesome, has the potential to cause envelope damage (e.g., glass, metal filings, etc.) or generally detracts from the clean appearance of the envelope. The following examples shall be scored as defects for unclean:
 - a. Foreign matter which presents no health hazard or potential pouch damage and which can be readily removed by gently shaking the envelope or by gently brushing the envelope with a clean, dry cloth.

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b. Dried product which affects less than 1/8 of the total surface area of one envelope face (localized and aggregate).

c. Water spots.

4.3.7.4 Envelope leakage examination. The envelopes shall be examined after testing as specified in 4.4.2 for the leakage defects listed in Table VI. The envelopes shall be examined after removal from the test apparatus. The lot size shall be expressed in units of envelopes. The sample unit shall be one filled and sealed envelope. The inspection level shall be I and the AQL, expressed in terms of defects per hundred units, shall be 0.65.

TABLE VI. Envelope leakage defects

Category	Defects
<u>Major</u>	
101	Delamination 1/
102	Leakage
103	Seal separation

- 1/ Delamination shall be scored as a defect except delamination of outer ply when located in the seal area 1/16 inch or further from food product edge of seal. Envelope exhibiting this type of delamination shall be tested by manually flexing the delaminated area 10 times. The area of delamination shall be held between the thumb and forefinger of each hand with both thumbs and forefingers touching each other. The delamination area shall then be rapidly flexed by rotating both hands in alternating clockwise - counterclockwise directions. Care shall be exercised when flexing delaminated area near the tear notches to avoid tearing the envelope material. After flexing, the separated outer ply shall be grasped between the thumb and forefinger and gently lifted toward the food product edge of the seal. If the separated area is too small to be held between thumb and forefinger, a number two stylus shall be inserted into the delaminated area and gentle lifting force applied against the outer ply. If separation of the outer ply can be made to extend to less than 1/16 inch from the product edge of the seal with no discernible resistance to the gentle lifting, it shall be considered evidence of delamination.

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4.3.7.5 Examination of cans for external condition, leakage, and internal coating. Examination shall be in accordance with the applicable quality assurance provisions of PPP-C-29.

4.3.7.6 Examination of can coating. When cans are required to be coated in accordance with TT-C-495, examination of coating shall be performed in accordance with the applicable quality assurance provisions of TT-C-495.

4.3.7.7 Examination for can labeling. Examination for labeling shall be performed in accordance with examination criteria of MIL-L-1497.

4.3.7.8 Examination of shipping containers packed with glass jars. Examination shall be performed in accordance with the applicable quality assurance provisions of PPP-G-460.

4.3.7.9 Examination of shipping containers packed with cans or flexible packages. Examination of the filled, closed, and reinforced shipping containers shall be performed in accordance with the applicable quality assurance provisions of PPP-B-636. In addition, the following defects shall be classified as follows:

Major: National stock number, item description, contract number, or date of pack markings missing, incorrect, or illegible.

Minor: Other required markings missing, incorrect, or illegible.
Arrangement or number of cans not as specified.
Arrangement or number of intermediate boxes (containing flexible packages) not as specified.
When applicable, reinforcement with nonmetallic strapping or tape is not used.

Level C shipping containers shall be examined only for the aforementioned marking defects and for the closure method specified in 5.2.3.

4.3.7.10 Examination of unit loads. Unitized loads shall be examined in accordance with the criteria of MIL-L-35078 and the applicable specification sheet for the type and class of load specified.

4.3.7.11 Envelopes. Conformance of envelope material to thickness requirements of 5.1.1.2 shall be ascertained by examination of pertinent invoices, labels, or other valid documents from the supplier of envelope material. Nonconformance shall indicate unacceptable material and use of such shall be cause for rejection of the involved end item.

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4.4 Methods of inspection.

4.4.1 Sieving. Sieving shall be performed as follows: Place a 100-gram sample on top of specified sieve or specified assembled sieves, as applicable, with attached pan. Attach cover and with left hand hold sieve assembly at an angle (approximately 30 degrees from the horizontal) so that upper edge of the tilted plane is toward the right hand. Shake by striking the right side of the assembly with a short sharp stroke with right hand, moving in a horizontal plane. After each 25 strokes, turn sieve assembly one-sixth of a revolution in same direction. Continue shaking for 5 minutes.

4.4.2 Leakage test. The filled and sealed envelopes shall be tested by placing them in a dry desiccator, or similar apparatus, and subjecting them to a vacuum of 26 inches of mercury for 30 seconds. Any envelope that does not swell to form a tightly distended package having at least one distorted edge during the test shall be recorded as a leaker. After vacuum testing, the envelopes shall be visually inspected for evidence of delamination and for seal separation. Any leakage, any delamination, or any seal separation of more than 1/16 inch from the product edge of any seal shall be recorded as a defect.

4.4.3 Testing of finished product. The finished product shall be tested for conformance to the applicable analytical requirements as specified in 3.5.2. The sample shall be eight ounces of finished product selected from a minimum of five randomly selected cans or jars or from the appropriate number of envelopes. Testing shall be in accordance with the following methods from the Official Methods of Analysis of the Association of Official Analytical Chemists:

<u>Test</u>	<u>Source</u>	<u>Method</u>
Total Chlorides	Chapter: Meat and Meat Products Section: Meat Extracts and Similar Products	Chlorides
Moisture	Chapter: Fruits and Fruit Products	Moisture and Dried Fruits <u>1/</u>
Total Fat	Chapter: Meat and Meat Products	Crude Fat or Ether Extract
Total Sugars (as invert) <u>2/</u>	Chapter: Sugars and Sugar Products Section: Sugars and Sirups	Sucrose-Chemical Methods (reducing sugar invert)

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<u>Test</u>	<u>Source</u>	<u>Method</u>
Sodium Content	Chapter: Fish and Other Marine Products	Sodium and Potassium-Flame Photometric
Total Nitrogen	Chapter: Meat and Meat Products Section: Meat Extracts and Similar Products	Total Nitrogen

- 1/ Drying time shall be six hours at 70°C, and the pressure shall not exceed 50 mm of mercury.
- 2/ Remove fat from 10 grams of soup and gravy base as in AOAC, Chapter: Beverages: Malt Beverages and Brewing Materials, Cereal Adjunct (Oil or Petroleum Extract). The resultant powder is diluted as follows: Dilution-10 gm/250 mL H₂O, 50 mL/200 mL H₂O, 50 mL aliquot, proceed with analysis: Sucrose Chemical Method (reducing sugar invert).

4.5.1 Sedimentation test. Sedimentation shall be determined as follows: To a 400 mL beaker containing 240 mL of hot water (180°F), gradually add 7 grams of ham-flavored soup and gravy mix, and mix thoroughly. Measure sedimentation after the mixture has been standing 5 minutes after reaching a temperature of 70°F.

4.5.2 Tin coating weight. Tin coating weight shall be determined by any method specified in PPP-C-96.

5. PACKAGING

5.1 Preservation. Preservation shall be Level A or C, as specified (see 6.1).

5.1.1 Level A. The product shall be preserved in accordance with 5.1.1.1 or 5.1.1.2.

5.1.1.1 Style A product unit packed in cans. The Style A product shall be filled into a size 401 x 411 can. The net weight shall be 1 pound, 8 ounces. The can shall be coated overall on the inside with an enamel suitable for the product furnished by the can manufacturer. The can shall be an open-top style, round, metal can with welded or soldered side seam and compound-lined, double-seamed ends. The can shall be made throughout from not less than commercial 0.25 pound per base box electrolytic tinplate (see 4.5.2) and shall be coated overall on the outside with a coating conforming to Type I of TT-C-495. The can shall be hermetically sealed. The seams shall not leak when subjected to the seam leakage procedure of PPP-C-29.

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5.1.1.2 Style A product unit packed in envelopes. The product shall be filled into an envelope which shall be heat sealed along all four sides. The net weight shall be 7 grams. The dimensions of the heat-sealed envelope containing the product shall be not more than 2-5/8 by 2-5/8 inches, or 2-1/2 by 3-1/2 inches. The filled and sealed envelope shall be made from a heat-sealable, laminated material, one lamina of which shall be 0.00035 inch thick aluminum foil. The combined sheet shall show no evidence of delamination (see Table VI) when made into envelopes or heat-sealed. The outside of the complete envelope shall be dull brown or light yellow.

5.1.1.2.1 Intermediate box for envelopes. Two hundred envelopes shall be placed on edge in two rows of 100 each in a snug-fitting, folding paperboard box made in accordance with Variety 1, Style III, Type G, Class 1 of PPP-B-566. Paperboard for the box shall be 0.022-inch thick, and shall have a minimum bursting strength of 66 pounds per square inch. A divider shall be used to separate the two rows. Each box shall be securely closed with tape as specified in the appendix of PPP-B-566.

5.1.2 Level C. The product shall be preserved in accordance with 5.1.2.1, 5.1.2.2, or 5.1.2.3.

5.1.2.1 Style A product unit packed in cans. One pound, 8 ounces of Style A product shall be unit packed in accordance with 5.1.1.1, except that cans with or without commercial exterior coating will be acceptable.

5.1.2.2 Types I and II, Styles A and C, and Type IV, Style D product unit packed in glass jars or metal cans. The product shall be filled into a glass jar or metal can. The net weight of glass jars as specified shall be either 8 ounces or 1 pound. The glass jar shall be that normally used by the supplier for the product and shall be furnished with a metal or plastic screw cap closure and a tight-fitting liner. The net weight of cans shall be 1 pound. The cans shall be in accordance with Type III or V, Class 1 of PPP-C-96.

5.1.2.3 Types I, II, and IV, Style B product unit packed in containers. Each cube shall be wrapped in a sheet of material normally used for the product. Twenty-five or fifty cubes shall be unit packed in a container in accordance with good commercial practice.

5.2 Packing. Packing shall be Level A, B, or C as specified (see 6.1).

5.2.1 Level A packing.

5.2.1.1 Metal cans. Twelve 1-pound cans of Style A, C, or D product, arranged four in length, three in width, and one in depth, or twenty-four 1-1/2 pound cans of Style A product, arranged four in length, three in width, and two in depth shall be packed in a snug-fitting, fiberboard box constructed, closed, and reinforced in accordance with Style RSC, Grade V2s of

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PPP-B-636. The tiered cans shall be separated with a full length and width fiberboard pad made of the same material as the box. Each box shall be reinforced with nonmetallic strapping or pressure-sensitive adhesive, filament-reinforced tape in accordance with the appendix of PPP-B-636. Shipping containers shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified (see 6.1). When unit loads are strapped, strapping shall be limited to nonmetallic strapping, except for Type II, Class F loads.

5.2.1.2 Envelopes. Eight intermediate boxes of envelopes, arranged in two rows of four each, shall be packed in a snug-fitting, shipping container as specified in 5.2.1.1. When specified (see 6.1), 1,000 envelopes shall be unit packed directly into a shipping container in accordance with 5.2.3. Shipping containers shall be arranged in unit loads in accordance with 5.2.1.1.

5.2.1.3 Commercial containers. Twelve or twenty-four containers of Style B product shall be packed as specified in 5.2.1.1. Shipping containers shall be arranged in unit loads in accordance with 5.2.1.1.

5.2.1.4 Glass jars. Glass jars of the product shall be packed in accordance with the Level A requirements of PPP-G-460. Shipping containers shall be arranged in unit loads in accordance with 5.2.1.1.

5.2.2 Level B packing.

5.2.2.1 Metal cans. Twelve 1-pound cans of Style A, C, or D product, arranged four in length, three in width, and one in depth, or twenty-four 1-1/2 pound cans of Style A product, arranged four in length, three in width, and two in depth shall be packed in a snug-fitting, fiberboard box, constructed, closed, and reinforced in accordance with Style RSC, Grade V3c, V3s, or V4s of PPP-B-636. The tiered cans shall be separated with a full length and width fiberboard pad made from the same material as the box. Each shipping container shall be reinforced with nonmetallic strapping or pressure-sensitive adhesive, filament-reinforced tape in accordance with the appendix of PPP-B-636.

5.2.2.2 Envelopes. Eight intermediate boxes of envelopes, arranged in two rows of four each, shall be packed as specified in 5.2.2.1.

5.2.2.3 Commercial containers. Twelve or twenty-four containers of Style B product shall be packed as specified in 5.2.2.1.

5.2.2.4 Glass jars. Glass jars of the product shall be packed in accordance with the applicable Level B requirements specified in PPP-G-460.

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5.2.3 Level C packing.

5.2.3.1 Metal cans. Twelve 1-pound cans of Style A, C, or D product, or twenty-four 1-1/2 pound cans of Style A product shall be packed in accordance with the Uniform Freight Classification or National Motor Freight Classification, as applicable, except fiberboard containers shall be closed in accordance with Method II as specified in the appendix of PPP-B-636.

5.2.3.2 Envelopes. Eight intermediate boxes of envelopes shall be packed as specified in 5.2.3.1.

5.2.3.3 Commercial containers. Twelve or twenty-four containers of Style B product shall be packed as specified in 5.2.3.1.

5.2.3.4 Glass jars. Glass jars of the product shall be unit packed in accordance with the applicable Level C requirements specified in PPP-G-460.

5.3 Unit loads. When specified (see 6.1), the product, packed as specified in 5.2.2 and 5.2.3, shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified. When unit loads are strapped, the strapping shall be limited to nonmetallic strapping, except for Type II, Class F loads.

5.4 Labeling and marking.

5.4.1 Military agencies.

5.4.1.1 Cans. The cans shall be labeled in accordance with MIL-L-1497, with the following information, and as specified in 5.4.1.1.1:

SOUP AND GRAVY BASE, BEEF, CHICKEN, OR IMITATION HAM FLAVORED
(as applicable in letters larger than any others used for the label)

Ingredient statement (to appear directly beneath and contiguous to the name of the product)

Net weight _____

Est. No. _____

(may be embossed on one end of the can, if applicable)

Inspection legend.

Name and address of manufacturer.

5.4.1.1.1 Directions for use. The following directions for use, as applicable, shall be included on the label.

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I. For the 8-ounce jar:

Stir contents into 2 gallons boiling water. Makes 2 gallons stock or 32 eight ounce servings.

For 1 quart, stir 1 ounce (3 tablespoons) base into 1 quart boiling water.

For 1 cup, stir 2 teaspoons base into 1 cup boiling water.

Use for stock in recipes for soups, gravies, and sauces.

Check seasoning before adding salt.

II. For 1-pound, 8-ounce can:

Stir contents into 6 gallons boiling water. Makes 6 gallons stock or 100 one-cup servings.

For 1 gallon, stir 4 ounces (12 tablespoons) base in 1 gallon boiling water.

For 1 cup, stir 2 teaspoons base into 1 cup boiling water.

Use for stock in recipes for soups, gravies, and sauces.

Check seasoning before adding salt.

III. For 1-pound jar:

Stir contents into 4 gallons boiling water. Makes 4 gallons stock or 64 one-cup servings.

For one quart, stir 1 ounce (3 tablespoons) base into 1 quart boiling water.

For one cup, stir 2 teaspoons base into 1 cup boiling water.

Use for stock in recipes for soups, gravies, and sauces.

Check seasoning before adding salt.

IV. Bouillon cubes

For soup - dissolve one cube in 1/3 canteen cup (8 fluid ounces) of hot water.

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5.4.1.2 Envelopes. The following information, complying with 5.4.1.1, shall be printed on the envelope. In addition, the labeling information shall comply with applicable requirements specified in 5.4.1.1. Printing shall be in a contrasting color to allow easy and legible reading.

SOUP AND GRAVY BASE, BEEF, CHICKEN, OR IMITATION HAM FLAVORED
(as applicable and in letters larger than any others used for the label)

Ingredient statement.

Net weight - 7 grams.

For soup - dissolve contents in 1/3 canteen cup (8 fluid ounces)
of hot water.

Name and address of manufacturer.

5.4.1.3 Glass jars. Commercial labeling that complies with the provisions of the Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder will be acceptable.

5.4.1.4 Intermediate boxes and shipping containers. In addition to any special marking required by the contract or purchase order, intermediate boxes and shipping containers shall be marked in accordance with MIL-STD-129.

5.4.1.5 Unit loads. Unit loads shall be marked in accordance with MIL-L-35078.

5.4.2 Civil agencies.

5.4.2.1 Cans. The cans shall be labeled in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder, and shall include the following information:

Name of item (as applicable to the type, natural or imitation flavored)

Style (powder, cube, paste, or granular - as applicable)

Net weight

Name and address of manufacturer

Directions for use (individual serving and multiple servings)

Nutritional information (Class 2 - low sodium product only)

In addition, the label for Class 1 - regular product shall include the following: "Note: This product has a high salt content; if used as a soup or gravy base, reduce seasoning accordingly."

5.4.2.2 Shipping containers. Shipping containers shall be marked in accordance with FED-STD-123.

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6. NOTES

6.1 Ordering data. Purchasers shall select the preferred options permitted herein and include the following information in procurement documents:

- a. Title, number, and date of this specification.
- b. Type, class, and style of product required (see 1.2).
- c. When other than three 1-pound samples of bid sample is required (see 3.1).
- d. Provisions for approved bid samples (see 3.6.3 and 6.3).
- e. Applicable levels of preservation and packing required (see 5.1 and 5.2).
- f. Type and class of unit load when unit loading is required (see 5.2.1 and 5.3).
- g. When 1,000 envelopes are to be packed directly into shipping container (see 5.2.1.2).

6.2 Appropriate level of pack. Based on conditions known or expected to be encountered during shipping, handling, and storage of the specific item being procured, the contracting officer should select the appropriate level of pack in accordance with the criteria established in AR 700-15/NAVSUPINST 4030.28/AFR 71-6/MCO 4030.33A/DLAR 4145.7.

6.3 Bid sample evaluation. Bid samples will be evaluated by the U.S. Army Natick Research, Development and Engineering Center. The bid sample will be evaluated by a consumer-type panel on a 9-point hedonic scale graduated in successive degrees of "like extremely" to "dislike extremely." For further details of the evaluation procedure, see "Hedonic Scale Method of Measuring Food Preference" from Food Technology, 1957, Vol. XI, No. 9. Copies may be obtained from the U.S. Army Natick Research, Development and Engineering Center (ATTN: STRNC-WBF), Natick, MA 01760-5014.

6.4 Subject term (key word) listing.

Meat flavored liquid
Poultry flavored liquid
Subsistence, liquid, flavored

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MILITARY INTERESTS:

Custodians

Army - GL
Navy - SA
Air Force - 50

Review activities

Army - MD, QMS
Navy - MC
DP - SS

CIVIL AGENCY COORDINATING ACTIVITIES:

VA - OSS
USDA - FV
HHS - NIH, FDA

PREPARING ACTIVITY:

Army - GL
(Project No. 8935-0091)

