

SECTION C

This document covers spices packaged in an envelope for use by the Department of Defense as a component of operational rations.

C-1 ITEM DESCRIPTION

PACKAGING REQUIREMENTS AND QUALITY ASSURANCE PROVISIONS FOR CID A-A-20001A, SPICES AND SPICE BLENDS

Types, classes, forms, blends.

Type I, Class Z, Form 1 - Ground Red Pepper

Type II, Class D, Blend (1) - Seasoning Blend, Salt Free, With Herbs and Citrus

C-2 PERFORMANCE REQUIREMENTS

A. Product standard. A sample shall be subjected to first article (FA) or product demonstration model (PDM) inspection as applicable, in accordance with the tests and inspections of Section E of the Packaging Requirements and Quality Assurance Provisions. The approved sample shall serve as the Product Standard. Should the contractor at any time plan to, or actually produce the product using different raw material or process methodologies from the approved Product Standard, which result in a product non comparable to the Product Standard, the contractor shall arrange for a new or alternate FA or PDM approval. In any event, all product produced must meet all requirements of this document including Product Standard comparability.

B. Shelf life. The packaged food shall meet the minimum shelf life requirement of 36 months at 80°F.

C. Odor and flavor. The packaged product shall be free from foreign odors and flavors.

D. Material. The packaged product shall be free from foreign materials.

E. Palatability and overall appearance. The finished product shall be equal to or better than the approved product standard in palatability and overall appearance.

F. Net weight. The net weight of one serving of ground red pepper shall be not less than 2.0 grams. The net weight of one serving of seasoning blend shall be not less than 0.6 grams.

SECTION D

D-1 PACKAGING

A. Packaging. Not less than 2.0 grams of ground red pepper shall be filled into an envelope having maximum outside dimensions of 2 1/2 inches long by 2 inches wide. Not less than 0.6 grams of seasoning blend shall be filled into an envelope having maximum outside dimensions of 2 1/2 inches long by 1 1/2 inches wide. The envelope shall be made from a heat sealable barrier material, one layer of which is a minimum of 0.00035 inch thick aluminum foil. All four edges of the envelope shall be heat-sealed or on three edges with the fourth edge being formed by folding the material prior to filling. The seals shall be not less than 1/8 inch wide. The sealed envelope shall exhibit no leakage when examined in accordance with E-6,B,(1). There shall be no crushed, misshapen or unclean envelopes.

D-2 LABELING

A. Envelopes. Each envelope shall be clearly printed or stamped in a manner that does not damage the envelope, with permanent black ink or any other contrasting color, which is free of carcinogenic elements. The following information shall be printed on the envelope at random provided that the complete information appears at least once on the envelope:

GROUND RED PEPPER

SEASONING BLEND, SALT FREE

(In letters larger than any others used on the label)

2 GRAMS NET WEIGHT
INGREDIENTS

Name and address of manufacturer

0.6 GRAMS NET WEIGHT
INGREDIENTS

Name and address of manufacturer

1/ Each envelope shall have the date of pack noted by using a four digit code beginning with the final digit of the current year followed by the three digit Julian day code. For example, 12 October 2002 would be coded as 2285. The Julian day code shall represent the day the product was packaged into the envelope.

D-3 PACKING

A. Packing for shipment to ration assembler. Not more than 40 pounds of product shall be packed in a fiberboard shipping container constructed in accordance with style RSC-L, class domestic, variety SW, grade 200 of ASTM D5118/D5118M-95 (2001), Standard Practice for Fabrication of Fiberboard Shipping Boxes. Each container shall be securely closed in accordance with ASTM D1974-98, Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes. When metal fasteners are used in the box manufacturer's joint or setup, the fasteners on the inside shall be covered with tape to protect the contents from mechanical damage.

D-4 MARKING

A. Shipping containers. Shipping containers shall be marked in accordance with DSCP FORM 3556, Marking Instructions for Shipping Cases, Sacks and Palletized/Containerized Loads of Perishable and Semiperishable Subsistence.

SECTION E INSPECTION AND ACCEPTANCE

The following quality assurance criteria, utilizing ANSI/ASQC Z1.4-1993, Sampling Procedures and Tables for Inspection by Attributes, are required. Unless otherwise specified, Single Sampling Plans indicated in ANSI/ASQC Z1.4-1993 will be utilized. When required, the manufacturer shall provide the certificate(s) of conformance to the appropriate inspection activity. Certificate(s) of conformance not provided shall be cause for rejection of the lot.

A. Definitions.

(1) Critical defect. A critical defect is a defect that judgment and experience indicate would result in hazardous or unsafe conditions for individuals using, maintaining, or depending on the item; or a defect that judgment and experience indicate is likely to prevent the performance of the major end item, i.e., the consumption of the ration.

(2) Major defect. A major defect is a defect, other than critical, that is likely to result in failure, or to reduce materially the usability of the unit of product for its intended purpose.

(3) Minor defect. A minor defect is a defect that is not likely to reduce materially the usability of the unit of product for its intended purpose, or is a departure from established standards having little bearing on the effective use or operation of the unit.

B. Classification of inspections. The inspection requirements specified herein are classified as follows:

(1) Product standard inspection. The first article or product demonstration model shall be inspected in accordance with the provisions of this document and evaluated for overall appearance and palatability. Any failure to conform to the performance requirements or any appearance or palatability failure, shall be cause for rejection of the lot. The approved first article or product demonstration model shall be used as the product standard for periodic review evaluations. All food components that are inspected by the USDA shall be subject to periodic review sampling and evaluation. The USDA shall select sample units during production of contracts and submit them to the following address for evaluation:

US Army Soldier & Biological Chemical Command
Soldiers System Ctr., Natick Soldier Center
Attn: AMSSB-RCF-F(N)
15 Kansas Street
Natick, MA 01760-5018

One lot shall be randomly selected during each calendar month of production. Six (6) sample units of each item produced shall be randomly selected from that one production lot. The six (6) sample units shall be shipped to Natick within five (5) working days from the end of the production month and upon completion of all USDA inspection requirements. The sample units will be evaluated for the characteristics of appearance, odor, flavor, texture and overall quality.

(2) Conformance inspection. Conformance inspection shall include the product examination and the methods of inspection cited in this section.

E-5 QUALITY ASSURANCE PROVISIONS (PRODUCT)

A. Product examination. The finished product shall be examined for compliance with the performance requirements specified in Section C of this Packaging Requirements and Quality Assurance Provisions document and A-A-20001A utilizing the double sampling plans indicated in ANSI/ASQC Z1.4 - 1993. The lot size shall be expressed in envelopes. The sample unit shall be the contents of one envelope. The inspection level shall be S-3 and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 1.5 for major defects and 4.0 for minor defects. Defects and defect classifications are listed in Table I.

TABLE I. Product defects 1/ 2/

Category		Defect
<u>Major</u>	<u>Minor</u>	
		<u>Appearance</u>
101		Product not type, class, form, blend as specified.
102		Ground red pepper not from red, dried ripe fruit of <u>Capsicum frutescens L.</u>
103		Seasoning blend not salt or sodium free.
104		Ground red pepper not fine or uniformly ground.
105		Seasoning blend not a mixture of small particles which are black, dark brown, green, orange, dark red or tan in color.
	201	Ground red pepper not a brownish red to red color.
		<u>Odor and flavor</u>
106		Ground red pepper not a characteristic hot flavor.
107		Ground red pepper does not possess a slightly pungent odor.
108		Seasoning blend does not possess a slight pungency.
109		Seasoning blend does not possess a garlic and pepper odor or flavor with mild herb and citrus scent.
		<u>Texture</u>
	202	Ground red pepper not dry or not granular.
	203	Seasoning blend not free flowing or not granular.
		<u>Net weight</u>
	204	Net weight of one serving of ground red pepper less than 2.0 grams.
	205	Net weight of one serving of seasoning blend less than 0.6 grams.

1/ Presence of any foreign material such as, but not limited to dirt, insect parts, hair, wood, glass, metal, or any foreign odors or flavors such as, but not limited to burnt, scorched, rancid, sour, or stale shall be cause for rejection of the lot.

2/ Finished product not equal to or better than the approved product standard in palatability and overall appearance shall be cause for rejection of the lot.

B. Methods of inspection.

(1) Shelf life. The contractor shall provide a certificate of conformance that the product has a 3 year shelf life when stored at 80°F. Government verification may include storage for 6 months at 100°F or 36 months at 80°F. Upon completion of either storage period, the product will be subjected to a sensory evaluation panel for appearance and palatability and must receive an overall score of 5 or higher based on a 9 point hedonic scale to be considered acceptable.

(2) Net weight. The net weight of the filled and sealed envelopes shall be determined by weighing each sample on a suitable scale tared with a representative empty envelope. Results shall be reported to the nearest 0.1 gram.

E-6 QUALITY ASSURANCE PROVISIONS (PACKAGING AND PACKING MATERIALS)

A. Packaging and labeling.

(1) Envelope material certification. Conformance to envelope material requirements shall be determined by certificate of conformance.

(2) Filled and sealed envelope examination. The filled and sealed envelopes shall be examined for the defects listed in table II. The sample size shall be expressed in envelopes. The sample unit shall be one envelope. The inspection level shall be I and the AQL, expressed in terms of defects per hundred units, shall be 0.65 for major defects and 2.5 for minor defects.

TABLE II. Filled and sealed envelope defects 1/

Category		Defect
<u>Major</u>	<u>Minor</u>	
101		Any opening in the packet/envelope, such as, but not limited to a tear, hole, open seal, or sifter. <u>2/</u>
102		Envelopes exceed maximum length and width as specified.
103		Seal separation. <u>3/</u>
104		Delamination. <u>3/</u>
105		Envelope not heat sealed on all four edges or on three edges with the fourth edge being formed by folding the material prior to filling with minimum 1/8 inch wide seals.
106		Unclean.
107		Envelope has foreign odor.
	201	Label is smudged, missing, incorrect, or illegible.

1/ Any evidence of rodent or insect infestation shall be cause for rejection of the lot.

2/ A sifter is an envelope which loses any amount of contents when shaken vigorously.

3/ Examine envelope after removal from leakage test apparatus.

B. Methods of inspection.

(1) 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 (atmospheric pressure is 29.9 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.

C. Packing.

(1) Shipping container and marking examination. The filled and sealed shipping containers shall be examined for the defects listed in table III below. The lot size shall be expressed in shipping containers. The sample unit shall be one shipping container fully packed. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 4.0 for major defects and 10.0 for total defects.

TABLE III. Shipping container and marking defects

Category		Defect
<u>Major</u>	<u>Minor</u>	
101		Marking omitted, incorrect, illegible, or improper size, location sequence or method of application.
102		Inadequate workmanship. <u>1/</u>
	201	More than 40 pounds of product.

1/ Inadequate workmanship is defined as, but not limited to, incomplete closure of container flaps, loose strapping, inadequate stapling, improper taping, or bulged or distorted container.

SECTION J REFERENCE DOCUMENTS

DSCP FORMS

DSCP FORM 3556 Marking Instructions for Shipping Cases, Sacks and Palletized/ Containerized Loads of Perishable and Semiperishable Subsistence

FEDERAL STANDARD

FED-STD-595 Colors Used in Government Procurement

NON-GOVERNMENTAL STANDARDS

AMERICAN SOCIETY FOR QUALITY (ASQ)

ANSI/ASQCZ1.4-1993 Sampling Procedures and Tables for Inspection by Attributes

ASTM INTERNATIONAL

D1974-98 Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes
 D5118/D5118M-95 (2001) Standard Practice for Fabrication of Fiberboard Shipping Boxes