

SECTION C

C-1 ITEM DESCRIPTION

QUALITY ASSURANCE PROVISIONS AND PACKAGING REQUIREMENTS FOR SALT, TABLE, IODIZED

31 January 2000

Each component is consumed by combat personnel under worldwide environmental extremes as part of an operational ration, and is a source of nutritional intake.

C-2 PERFORMANCE REQUIREMENTS

A. Product standard. A sample shall be subjected to first article or product demonstration model inspection as applicable, in accordance with the tests and inspections of Section E of this Quality Assurance Provision and Packaging Requirements document.

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

C. Appearance. The packaged product shall be transparent to opaque, white crystalline solid of variable particle size.

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

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

F. Net weight. The net weight of one serving of product shall be not less than 4 grams.

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

SECTION D

D-1 PACKAGING

A. Packaging. Not less than 4 grams of salt shall be filled into an envelope having maximum outside dimensions of 2-1/2 inches long by 1-5/8 inches wide. The envelope shall be made from 25 pounds-per-ream sulfite pulp, kraft pulp, or a mixture. The color shall be natural kraft or dull brown. The paper shall be coated on one side with polyethylene. The envelope shall be formed and closed by heat sealing on no less than three of four sides and shall not allow sifting or spillage of the product. There shall be no crushed, misshapen or unclean envelopes.

D-2 LABELING

A. Labeling. 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 or ingredients. The following information shall be printed on the envelope at random provided that the complete information appears at least once on the envelope:

IODIZED SALT

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

4 GRAMS NET WEIGHT

INGREDIENTS

Name and address of manufacturer

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 D 5118, Standard Practice for Fabrication of Fiberboard Shipping Boxes. Each container shall be securely closed in accordance with ASTM

D 1974, Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Shipping Containers.

D-4 MARKING

A. Shipping containers. Shipping containers shall be marked in accordance with DPSC 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. 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 Quality Assurance Provisions and Packaging Requirements document and evaluated for palatability and overall appearance. Any failure to conform to the performance requirements or any appearance or palatability failure shall be cause for rejection.

(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 Quality Assurance Provisions and Packaging Requirements document 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
Major	Minor	
101		Appearance not as specified.
102		Not a free flowing granular powder.
103		Presence of lumps. 3/

1/ Presence of any foreign material such as, but not limited to dirt, insect parts, hair, wood, glass, metal, or foreign odors and 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.

3/ Lumps that do not fall apart under light pressure between the fingers shall be scored as a defect.

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 acceptable quality level (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
Major	Minor	
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 (2-1/2 by 1-5/8 inches).
103		Crushed or misshapen resulting in two or more creases in the product area of the envelope.
104		Envelope not heat sealed on at least three edges.
105		Unclean.
106		Envelope has foreign odor.
107		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.

B. Packing.

A. Shipping container 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 defects

Category	Defect
Major	Minor
101	National stock number, item description, contract number, name and address of producer, or date of pack missing, incorrect, or illegible.
102	Container not properly closed.
	201 Other required markings missing, incorrect, or illegible.
	202 More than 40 pounds of product.

SECTION J REFERENCE DOCUMENTS

DPSC FORM

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

NON-GOVERNMENTAL STANDARDS

AMERICAN SOCIETY FOR QUALITY CONTROL (ASQC)

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 1974 - Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Shipping Containers

D 5118 - Standard Practice for Fabrication of Fiberboard Shipping Boxes