

CHANGE 1 11 September 2002

QUALITY ASSURANCE PROVISIONS AND PACKAGING REQUIREMENTS FOR CID A-A-20212
FRUIT BARS

SECTION C

C-1 ITEM DESCRIPTION

Types, flavors, and styles.

Type I - Low fat
Type III - Regular

Flavor A - Strawberry
Flavor B - Blueberry
Flavor C - Peach
Flavor D - Apple
Flavor E - Raspberry
Flavor F - Fig

Style a - Bakery covering
Style b - Cereal covering

Packages.

Package a - Meal, Cold Weather (MCW)
Package b - Food Packet, Long Range Patrol (LRP)
Package c - Meal, Ready-To-Eat (MRE)

Unless otherwise specified, the following applies to all types, flavors, styles, and packages.

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. Calorie content.

(1) The type I, flavor A, B, C, D, or E, style b, fruit bar shall have not less than 130 calories for Package c (MRE) and 260 calories for Package a (MCW) and Package b (LRP).

(2) The type III, flavor F, style a, fruit bars shall have not less than 200 calories.

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SECTION D

D-1 PACKAGING

A. Packaging. When specified, one or multiple fruit bars, type III, flavor F, style a, with a net weight of not less than 54 grams, with or without commercial wrapping shall be packed in a preformed or form-fill-seal barrier pouch as described below. When specified, one or multiple fruits bars, type I, flavor A, B, C, D, or E, style b, with a net weight of not less than 37 grams for Package c (MRE) and 74 grams for Package a (MCW) and Package b (LRP), commercially packaged and labeled shall be packed in a preformed or form-fill-seal barrier pouch as described below.

(1) Preformed pouches.

a. Pouch material. The preformed pouch shall be fabricated from 0.002 inch thick ionomer or polyethylene film laminated or extrusion coated to 0.00035 inch thick aluminum foil which is then laminated to 0.0005 inch thick polyester. The three plies shall be laminated with the polyester on the exterior of the pouch. All tolerances for thickness of pouch materials shall be plus or minus 20 percent. For Meal, Ready-to Eat (MRE) and Long Range Patrol (LRP), the exterior pouch color shall conform to number 20219, 30219, 30227, 30279, 30313, 30324, or 30450 of FED-STD-595, Colors. For Meal, Cold Weather (MCW), applications, the complete exterior surface of the pouch shall be colored white overall with a color in the range of 37778 through 37886 of FED-STD-595, Colors. The material shall show no evidence of delamination, degradation, or foreign odor when heat-sealed or fabricated into pouches.

b. Pouch construction. The pouch shall be a flat style preformed pouch having maximum inside dimensions of 5 inches wide by 7 inches long. The pouch shall be made by heat sealing three sides with 3/8 inch (- 1/8 inch, + 3/16 inch) wide seals. The heat seals shall be made in a manner that will assure hermetic seals. The side and bottom seals shall have an average seal strength of not less than 6 pounds per inch of width and no individual specimen shall have a seal strength of less than 5 pounds when tested as specified in E-5,A,(3),a. Alternatively, the pouch shall exhibit no rupture or seal separation greater than 1/16 inch when tested for internal pressure resistance as specified in E-5,A,(3),c. A tear nick or tear notch shall be provided on one outside edge or two opposite outside edges of the pouch to facilitate easy opening of the filled and sealed pouch. A 1/8 inch (+ 1/6 inch) wide lip may be incorporated at the open end of the pouch to facilitate opening and filling of the pouch.

c. Pouch filling and sealing. When specified, one or multiple type III, flavor F, style a, fruit bars with a net weight of 54 grams shall be inserted into the pouch in a two-high stack or positioned side by side and the filled pouch shall be sealed under a vacuum level of eight to twelve inches of mercury with a minimum 1/8 inch wide heat seal. When specified, one or multiple commercially packaged, type I, flavor A, B, C, D, or E, style b, fruit bar with a net weight of 37 grams or 74 grams shall be inserted into the pouch and the filled pouch shall be sealed with a minimum 1/8 inch wide

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heat seal. The closure seal shall be free of foldover wrinkles or entrapped matter that reduces the effective closure seal width to less than 1/16 inch. Seals shall be free of impression or design on the seal surface that would conceal or impair visual detection of seal defects. The average seal strength shall be not less than 6 pounds per inch of width and no individual specimen shall have a seal strength of less than 5 pounds per inch of width when tested as specified in E-5,A,(3),b. Alternatively, the filled and sealed pouch shall exhibit no rupture or seal separation greater than 1/16 inch or seal separation that reduces the effective closure seal to less than 1/16 inch when tested for internal pressure resistance as specified in E-5,A,(3),c.

(2) Horizontal form-fill-seal pouches.

a. Pouch material. The horizontal form-fill-seal pouch shall consist of a formed tray-shaped body with a flat sheet, heat sealable cover or a tray-shaped body with a tray-shaped heat sealable cover. The tray-shaped body, the flat sheet cover and the tray-shaped cover shall be fabricated from a 3-ply flexible laminate barrier material consisting of, from outside to inside, 0.0009 inch thick oriented polypropylene bonded to 0.0007 inch thick deep forming aluminum foil with 10 pounds per ream pigmented polyethylene or adhesive, and bonding the opposite side of the aluminum foil to 0.003 inch thick ionomer or a blend of not less than 50 percent linear low density polyethylene and polyethylene. The linear low density polyethylene portion of the blend shall be a copolymer of ethylene and octene-1 having a melt index range of 0.8 to 1.2 g/10 minutes in accordance with ASTM D 1238, Flow Rates of Thermoplastics by Extrusion Plastometer and a density range of 0.918 to 0.922 g/cc in accordance with ASTM D 1505, Density of Plastics by Density Gradient Technique. Alternatively, the tray-shaped body and the flat sheet cover combination package may be fabricated from material consisting of 0.0005 inch thick polyester laminated to 0.0007 inch thick deep forming aluminum foil that has 0.003 inch thick ionomer, or polyethylene film laminated or extrusion coated to the opposite side. The polyester shall be on the outside of the pouch. The flat sheet cover shall be made of the same 3-ply laminate as specified for the tray-shaped body except the aluminum foil thickness may be 0.00035 inch. All tolerances for thickness of pouch materials shall be plus or minus 20 percent. The color requirements of the exterior (oriented polypropylene or polyester side) of the laminate shall be as specified in D-1,A,(1),a. The material shall show no evidence of delamination, degradation or foreign odor when heat-sealed or fabricated into pouches. The pouches shall not impart any odor or flavor to the product and shall be FDA approved for food use.

b. Pouch construction. The tray-shaped body and the tray-shaped cover shall be formed by drawing the flexible laminate material into an appropriately shaped cavity. The flat cover shall be in the form of a flat sheet of the barrier material taken from roll stock. Product as specified in D-1,A shall be placed into the tray-shaped body of the pouch. The filled pouch body shall be hermetically sealed with a vacuum level of 15-20 inches of mercury. Pouch closure shall be effected by heat sealing together the cover and body along the entire pouch perimeter. The closure seal width shall

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be a minimum of 1/8 inch. The closure seal shall have an average seal strength of not less than 6 pounds per inch of width and no individual specimen shall have a seal strength of less than 5 pounds per inch of width when tested as specified in E-5,A,(3),c. Alternatively, the filled and sealed pouch shall exhibit no rupture or seal separation greater than 1/16 inch or seal separation that reduces the effective closure seal width to less than 1/16 inch when tested for internal pressure resistance as specified in E-5,A,(3),c. The outside dimensions of the sealed pouches shall be a maximum of 5-5/16 inches wide by 8-1/8 inches long. The closure seal width shall be a minimum of 1/8 inch. A tear nick, notch, or serrations shall be provided on one outside edge or two opposite outside edges of the pouch to facilitate easy opening of the filled and sealed pouch. The sealed pouches shall not show any evidence of material degradation, aluminum stress cracking, delamination or foreign odor. Heat seals shall be free of occluded matter. Seals shall be free of impression or design on the seal surface that would conceal or impair visual detection of seal defects.

D-2 LABELING

A. Pouches. Each pouch shall be clearly printed or stamped, in a manner that does not damage the pouch, with permanent black ink, or other, dark, contrasting color, which is free of carcinogenic elements or ingredients. The information shall be located on the body of the pouch not closer than 1/16 inch to any seal. If a non-contact type printer is used, the information may be located anywhere on the pouch (in one complete print), except the closure seal area. The label shall contain the following information:

- (1) Product name (letters not less than 1/8 to 7/16 inch block letters)
- (2) Date 1/
- (3) Net Weight 2/
- (4) Contractor's name and address
- (5) Label of "FDA Nutrition Facts Label" in accordance with the Nutrition Labeling and Education Act (NLEA) 2/

1/ Each pouch shall have the date of pack noted by using a four-digit code beginning with the final digit of the current year followed by three digit Julian day code. For example, February 9, 1999 would be coded as 9040). The Julian code shall represent the day the product was packaged into the pouch.

2/ Shall appear on the commercial package or the barrier pouch, as applicable.

D-3 PACKING

A. Packing for shipment to ration assembler. Not more than 40 pounds of pouched product shall be packed flat in layers in a fiberboard box constructed and closed 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.

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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

Definitions.

A. Critical defect. A critical defect is a defect that judgment and experience indicate would result in hazardous or unsafe conditions for individuals using the item.

B. 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.

C. 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.

E-5 PACKAGING AND PACKING MATERIALS

Quality Assurance Provisions.

The following quality assurance criteria, utilizing ANSI/ASQC Z1.4-1993, Sampling Procedures and Tables for Inspection by Attributes, are required.

A. Packaging.

(1) Pouch material certification. Material listed below may be accepted on the basis of a contractor's certification of conformance to the indicated requirements. In addition, compliance to the requirements for inside pouch dimensions and dimensions of manufacturer's seals may be verified by certificate of conformance.

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| <u>Requirement</u> | <u>Requirement Paragraph</u> | <u>Test procedure</u> |
|--|------------------------------|--|
| Thickness of films for laminated material | D-1,A,(1)a and D-1,A,(2)a | As specified in A-A-3174 <u>1/</u> except that a machinist's micrometer may be used provided that its graduations and accuracy conform to the requirements of A-A-3174 |
| Aluminum foil thickness | D-1,A,(1)a and D-1,A,(2)a | As specified in ASTM B 479 <u>2/</u> |
| Laminated material identification and construction | D-1,A,(1)a and D-1,A,(2)a | Laboratory evaluation |
| Color of laminated material | D-1,A,(1)a and D-1,A,(2)a | Visual evaluation by FED-STD-595 <u>3/</u> |

1/ FED A-A-3174 Plastic Sheet and Strip, Polyolefin

2/ ASTM B 479 Specification for Annealed Aluminum Foil for Flexible Barrier Application

3/ FED-STD-595 Colors used in Government Procurements

(2) Filled and sealed pouch examination. The filled and sealed pouches shall be examined for the defects listed in table I. The lot size shall be expressed in pouches. The sample unit shall be one pouch. 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 4.0 for minor defects.

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SECTION E CONTINUED

TABLE I. Filled and sealed pouch defects 1/

| Category | | Defect |
|--------------|--------------|---|
| <u>Major</u> | <u>Minor</u> | |
| 101 | | Tear, hole, or open seal. |
| 102 | | Seal width less than 1/16 inch. <u>2/</u> |
| 103 | | Presence of delamination. <u>3/</u> |
| 104 | | Unclean pouch. <u>4/</u> |
| 105 | | Pouch has foreign odor. |
| 106 | | Any impression or design on the heat seal surfaces, which conceals or impairs visual detection of seal defects. <u>5/</u> |
| 107 | | Not packed as specified. <u>6/</u> |
| 108 | | Presence of stress cracks or material degradation in the aluminum foil. <u>7/ 8/</u> |
| | 201 | Label smudges, is missing, incorrect, or illegible. |
| | 202 | Tear nick, notch, or serrations missing or does not facilitate easy opening. |
| | 203 | Seal width less than 1/8 inch, but greater than 1/16 inch. |
| | 204 | Presence of delamination. <u>3/</u> |

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

2/ The effective closure seal is defined as any uncontaminated, fusion bonded, continuous path, minimum 1/16 inch wide, from side seal to side seal that produces a hermetically sealed pouch.

3/ Delamination defect classifications:

Major - Delamination of the outer ply in the pouch seal area that can be propagated to expose aluminum foil at the food product edge of the pouch after manual flexing of the delaminated area. To flex, the delaminated area shall be held between the thumb and forefinger of each hand with both thumbs and forefingers touching each other. The delaminated area shall then be rapidly flexed 10 times by rotating both hands in alternating clockwise-counterclockwise directions. Care shall be exercised when flexing delaminated areas near the tear notches to avoid tearing the pouch material. After flexing, the separated outer ply shall be grasped between thumb and forefinger and gently lifted toward the food product edge of the seal or 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 a gentle

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lifting force applied against the outer ply. If separation of the outer ply can be made to extend to the product edge of the seal with no discernible resistance to the gentle lifting, the delamination shall be classified as a major defect. Additionally, spot delamination of the outer ply in the body of the pouch that is able to be propagated beyond its initial borders is also a major defect. To determine if the laminated area is a defect, use the following procedure: Mark the outside edges of the delaminated area using a bold permanent marking pen. Open the pouch and remove the contents. Cut the pouch transversely not closer than 1/4 inch (\pm 1/16 inch) from the delaminated area. The pouch shall be flexed in the area in question using the procedure described above. Any propagation of the delaminated area, as evidenced by the delaminated area exceeding the limits of the outlined borders, shall be classified as a major defect.

Minor - Minor delamination of the outer ply in the pouch seal area is acceptable and shall not be classified as a minor defect unless it extends to within 1/16 inch of the food product edge of the seal. All other minor outer ply delamination in the pouch seal area or isolated spots of delamination in the body of the pouch that do not propagate when flexed as described above shall be classified as minor defects.

4/ Outer packaging shall be free from foreign matter, which is unwholesome, has the potential to cause pouch damage (for example, glass, metal filings) or generally detracts from the clean appearance of the pouch. The following examples shall not be classified 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 package or by gently brushing the pouch with a clean dry cloth.

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

c. Water spots.

5/ If doubt exists as to whether or not the sealing equipment leaves an impression or design on the closure seal surface that could conceal or impair visual detection of seal defects, samples shall be furnished to the contracting officer for a determination as to acceptability.

6/ Fruit bars shall be oriented in a two-high stack or positioned side by side when packed in a preformed pouch as specified in D-1,A,(1),a or side by side, (not stacked), when packed in a form-fill-seal pouch as specified in D-1,A,(2),b.

7/ Applicable to form-fill-seal pouches only.

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8/ The initial examination shall be a visual examination of the closed package. Any suspected visual evidence of stress cracks in the aluminum foil (streaks, breaks or other disruptions in the laminated film) shall be verified by the following physical examination. To examine for stress cracks, the inside surface of both tray-shaped bodies shall be placed over a light source and the outside surface observed for the passage of light. Observation of light through the pouch material in the form of a curved or straight line greater than 2 mm in length shall be evidence of the presence of stress cracks in the aluminum foil. Observation of light through the pouch material in the form of a curved or straight line 2 mm in length or smaller or of a single pinpoint shall be considered a pinhole. Observation of ten or more pinholes per pouch shall be evidence of material degradation.

(3) Seal testing. The pouch seals shall be tested for seal strength as required in a and b.

a. Unfilled preformed pouch seal testing. The seals of the unfilled preformed pouch shall be tested for seal strength in accordance with ASTM F 88 - Seal Strength of Flexible Barrier Materials. The lot size shall be expressed in pouches. The sample size shall be the number of pouches indicated by inspection level S-1. Three adjacent specimens shall be cut from each of the three sealed sides of each pouch in the sample. The average seal strength of each side shall be calculated by averaging the three specimens cut from that side. Any average seal strength of less than 6 pounds per inch of width or any test specimen with a seal strength of less than 5 pounds per inch of width shall be cause for rejection of the lot.

b. Pouch closure seal testing. The closure seals of the pouches shall be tested for seal strength in accordance with ASTM F 88. The lot size shall be expressed in pouches. The sample size shall be the number of pouches indicated by inspection level S-1. For the closure seal on preformed bags, three adjacent specimens shall be cut from the closure seal of each pouch in the sample. For the form-fill-seal pouches, three adjacent specimens shall be cut from each side and each end of each pouch in the sample. The average seal strength of each side, end and closure shall be calculated by averaging the three specimens cut from that side, end and closure. Any average seal strength of less than 6 pounds per inch of width or any test specimen with a seal strength of less than 5 pounds per inch of width shall be cause for rejection of the lot.

c. Internal pressure test. The internal pressure resistance shall be determined by pressurizing the pouches while they are restrained between two rigid plates. The sample size shall be the number of pouches indicated by inspection level S-1. If a three seal tester (one that pressurizes the pouch through an open end) is used, the closure seal shall be cut off for testing the side and bottom seals of the pouch. For testing the closure seal, the bottom seal shall be cut off. The pouches shall be emptied prior to testing. If a four-seal tester (designed to pressurize filled pouches by use of a hypodermic needle through the pouch wall) is used, all four seals can be tested simultaneously. The distance between rigid restraining plates on the four-seal tester shall be equal to the thickness of the product +1/16 inch.

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Pressure shall be applied at the approximate uniform rate of 1 pound per square inch gage (psig) per second until 14 psig pressure is reached. The 14 psig pressure shall be held constant for 30 seconds and then released. The pouches shall then be examined for separation or yield of the heat seals. Any rupture of the pouch or evidence of seal separation greater than 1/16 inch in the pouch manufacturer's seal shall be considered a test failure. Any seal separation that reduces the effective closure seal width to less than 1/16 inch (see table II, footnote 2/) shall be considered a test failure. Any test failure shall be cause for rejection of the lot.

B. Packing.

(1) Shipping container examination. The filled and sealed shipping containers shall be examined for the defects listed 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.

Major: National stock, item description, contract number, name and address of producer, or date of pack missing, incorrect, or illegible.
 Container not properly closed.
 Components missing, damaged, or not as specified.

Minor: Other required markings missing, incorrect, or illegible.
 More than 40 pounds of product.

E-6 QUALITY ASSURANCE PROVISIONS (PRODUCT)

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

(1) First article inspection. When required in the solicitation, contract, or purchase order, the first article shall be inspected in accordance with the provisions of this document and evaluated for overall appearance and palatability. Any failure to conform to the quality assurance provisions of this document or any appearance or palatability failure shall be cause for rejection of the first article.

B. Product examination. The finished product shall be examined for the defects listed in table I. The lot size shall be expressed in pouches. The sample unit shall be the contents of one pouch. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 1.5 for major defects and 6.5 for minor defects.

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TABLE I. Product defects 1/ 2/

| Category | | Defect |
|--------------|--------------|--|
| <u>Major</u> | <u>Minor</u> | |
| 101 | | Fruit bar covering and filling not uniform. |
| 102 | | Fruit bar covering soggy. |
| 103 | | Type III, flavor F (fig) fruit bar does not contain at least 50% by weight of filling. <u>3/</u> |
| 104 | | Fruit bar crushed or broken into more than three parts. |
| 105 | | Fruit bars processed and packaged more than 90 days. |
| 106 | | Fruit color for flavor of fruit bar not as specified. |
| 107 | | Covering color not golden brown. |
| 108 | | Covering type not as specified. |
| 109 | | Fruit bar texture not soft, but dry or hard. |
| 110 | | Fruit bar type not as specified. |
| 111 | | Type I, flavor A, B, C, D, or E, fruit bar does not contain 33 percent by weight of fruit filling. <u>4/</u> |
| | 201 | Flavor and odor not typical of kind of fruit bar specified. |
| | 202 | More than 1/4 of the fruit bar is crushed or broken. |
| | 203 | Net weight not as specified. |

1/ The presence of foreign material (for example, dirt, insect parts, hair, wood, glass, metal), foreign odor or flavor (for example, burnt, scorched, stale, sour, rancid, musty, moldy), or foreign color shall be cause for rejection of the lot.

2/ Product not equal to or better than the approved first article in palatability or overall appearance shall be cause for rejection of the lot.

3/ Eight filled and sealed pouches shall be selected at random from the lot. The fruit bars in each pouch shall be weighed. The covering shall be removed by scraping, cutting, or any other appropriate method. The uncovered filling shall be weighed. The percent weight of filling for the product from each pouch shall be determined by dividing the weight of the filling by the weight of the bars and multiplying that value by 100. It has been found that warming the fruit bar to approximately 150°F facilitates the removal of the bakery covering. Alternately, the weight of the fruit filling may be verified by a certificate of conformance (COC).

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4/ The weight of the fruit filling shall be verified by a certificate of conformance (COC).

C. Methods of inspection.

(1) Net weight examination. The net weight of the filled and sealed pouches shall be determined by weighing each sample unit on a suitable scale tared with a representative empty pouch. Results shall be reported to the nearest 0.1 grams.

(2) Calorie content. The calorie content of the type I and type III fruit bars shall be verified by the NLEA "Nutrition Facts" label as printed on the commercial package or the trilaminate pouch, as applicable. Product not conforming to the calorie content as specified in Section C of this supplement shall be cause for rejection of the lot.

SECTION J REFERENCE DOCUMENTS

DPSC FORM

DPSC FORM 3556 Marking Instructions for Shipping Cases, Sacks and Palletized/Containerized Loads of Perishable and Semiperishable Subsistence, May 96

FEDERAL SPECIFICATION

A-A-3174 - Plastic Sheet and Strip, Polyolefin

FEDERAL STANDARD

FED-STD-595 - Colors Used in Government Procurement

NON-GOVERNMENTAL STANDARDS

AMERICAN SOCIETY FOR QUALITY CONTROL (ASQC)

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

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SECTION E CONTINUED

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- B 479 - Specification for Annealed Aluminum Foil For Flexible Barrier Application
- D 1238 - Flow Rates of Thermoplastics by Extrusion Plastometer
- D 1505 - Density of Plastics by Density Gradient Technique
- D 1974 - Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Shipping Containers
- D 5118 - Standard Practice for Fabrication of Fiberboard Shipping Boxes
- F 88 - Seal Strength of Flexible Barrier Materials

AOAC INTERNATIONAL

Official Methods of Analysis of the AOAC International

TO: DSCP-HRAC (Kavanagh/7771)

SUBJECT: ES02-190, Reply to Request for deviation, Quality Assurance Provisions and Packaging Requirements for Fruit Bars, A-A-20212, and Packaging Requirements and Quality Assurance Provisions for Nuts, Shelled, Roasted, A-A-20164B; DSCP-SS-02-35354.

1. Date received: 9 September 2002

Date due: 24 September 2002

Date replied: 11 September 2002

2. Quality Assurance Provisions and Packaging Requirements for Fruit Bars, A-A-20212,

17 September 1999, have been reviewed as requested. Accordingly, the following change to same are provided for use in all current, pending and future procurements until the document is formally amended or revised:

Section D:

Para D-1A.(1)b., line 9, after "E-5,A.(3),a." insert new sentence "Alternatively, the pouch shall exhibit no rupture or seal separation greater than 1/16 inch when tested for internal pressure resistance as specified in E-5,A,(3),c."

Para D-1,A,(1)c., line 8, after "E-5,A,(3),b." insert new sentence "Alternatively, the filled and sealed pouch shall exhibit no rupture or seal separation greater than 1/16 inch or seal separation that reduces the effective closure seal to less than 1/16 inch when tested for internal pressure resistance as specified in E-5,A,(3),c

Para D-1, A(2),a, line 20, after "of the pouch." , insert new sentence " The flat sheet cover shall be made of the same 3-ply laminate as specified for the tray-shaped body except the aluminum foil thickness may be 0.00035 inch."

Para D-1A,(2)b., line 10, after "E-5,A,(3),b." insert new sentence "Alternatively, the sealed pouch shall exhibit no rupture or seal separation greater than 1/16 inch or seal separation that reduces the effective closure seal width to less than 1/16 when tested for internal pressure resistance as specified in E-5,A,(3),c

Section E, add new Para "E-5,A,(3)c. Internal pressure test. The internal pressure resistance shall be determined by pressurizing the pouches while they are restrained between two rigid plates. The sample size shall be the number of pouches indicated by inspection level S-1. If a three seal tester (one that pressurizes the pouch through an open end) is used, the closure seal shall be cut off for testing the side and bottom seals of the pouch. For testing the closure seal, the bottom seal shall be cut off. The pouches shall be emptied prior to testing. If a four-seal tester (designed to pressurize filled pouches by use of a hypodermic needle through the pouch wall) is used, all four seals can be tested simultaneously. The distance between rigid restraining plates on the four-seal tester shall be equal to the thickness of the product +1/16 inch. Pressure shall be applied at the approximate uniform rate of 1 pound per square inch gage (psig) per second until 14 psig pressure is reached. The 14 psig pressure shall be held constant for 30 seconds and then released. The pouches shall then be examined for separation or yield of the heat seals. Any rupture of the pouch or evidence of seal separation greater than 1/16 inch in the pouch manufacturer's seal shall be considered a test failure. Any seal separation that reduces the effective closure seal width to less than 1/16 inch (see table II, footnote 2/) shall be considered a test failure. Any test failure shall be cause for rejection of the lot.

3. Packaging Requirements and Quality Assurance Provisions for Nuts, Shelled, Roasted, A-A-20164B, 17 September 1999, have been reviewed as requested. Accordingly, the following change to same are provided for use in all current, pending and future procurements until the document is formally amended or revised:

Section D:

Para D-1A.(1)b., line 9, after "E-5, A.(4),a." insert new sentence "Alternatively, the pouch shall exhibit no rupture or seal separation greater than 1/16 inch when tested for internal pressure resistance as specified in E-5,A, (4),c."

AMSSB-RCF-F(N) (Richards/5037) 11 September 2002
SUBJECT: ES02-190, Reply to Request for deviation, Quality Assurance Provisions and Packaging Requirements for Fruit Bars, A-A-20212, and Packaging Requirements and Quality Assurance Provisions for Nuts, Shelled, Roasted, A-A-20164B; DSCP-SS-02-35354.

Para D-1,A, (1)c., line 8, after "E-5,A,(4),b." insert new sentence "Alternatively, the filled and sealed pouch shall exhibit no rupture or seal separation greater than 1/16 inch or seal separation that reduces the effective closure seal to less than 1/16 inch when tested for internal pressure resistance as specified in E-5,A,(4),c

Para D-1A,(2)b., line 10, after "E-5, A,(4),b." insert new sentence "Alternatively, the sealed pouch shall exhibit no rupture or seal separation greater than 1/16 inch or seal separation that reduces the effective closure seal width to less than 1/16 when tested for internal pressure resistance as specified in E-5,A,(4),c

Section E, add new Para "E-5,A,(4),c. Internal pressure test. The internal pressure resistance shall be determined by pressurizing the pouches while they are restrained between two rigid plates. The sample size shall be the number of pouches indicated by inspection level S-1. If a three seal tester (one that pressurizes the pouch through an open end) is used, the closure seal shall be cut off for testing the side and bottom seals of the pouch. For testing the closure seal, the bottom seal shall be cut off. The pouches shall be emptied prior to testing. If a four-seal tester (designed to pressurize filled pouches by use of a hypodermic needle through the pouch wall) is used, all four seals can be tested simultaneously. The distance between rigid restraining plates on the four-seal tester shall be equal to the thickness of the product +1/16 inch. Pressure shall be applied at the approximate uniform rate of 1 pound per square inch gage (psig) per second until 14 psig pressure is reached. The 14 psig pressure shall be held constant for 30 seconds and then released. The pouches shall then be examined for separation or yield of the heat seals. Any rupture of the pouch or evidence of seal separation greater than 1/16 inch in the pouch manufacturer's seal shall be considered a test failure. Any seal separation that reduces the effective closure seal width to less than 1/16 inch (see table II, footnote 2/) shall be considered a test failure. Any test failure shall be cause for rejection of the lot.

4. Natick submits the enclosed documents with electronic highlighted changes.

5. POC for this action is Mr. Peter Sherman x4062 or Mr. Allen Richards, X5037.

Team Leader
DoD Food Engineering
Services Team

(ARichards)

CF: NSC:
Acheson
Alyward
Friel
Hamlin
Hill
Konrady A.
Konrady M.
Richards
Sherman
Trottier
Valvano

CF: DSCP & SVCs:
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Arthur
Beward
Charette
Ferrante
Galligan
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