

**PKG&QAP A-A-20295D (POLYMERIC)**  
**31 December 2013**  
**W/Change 01 5 Jan 17 ES17-012 (DSCP-SS-17-00231)**  
**SUPERSEDING**  
**PKG&QAP A-A-20295C (POLYMERIC)**  
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## **SECTION C**

This document covers cookies packaged in a polymeric tray 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-20295D COOKIES PACKAGED IN POLYMERIC TRAY, SHELF STABLE**

##### Class, type, bake types, styles, and flavors.

Class 2            Multiple serving package

  Type I -            Regular

    Bake type a -    Crisp

      Style I -        Oatmeal cookies

      Flavor 5 -      Chocolate chip

      Style J -        Chocolate chip cookies (regular, chunk, or mini chips)

      Flavor 7 -      Peanut butter with chocolate chips

      Flavor 9 -      Chocolate chunks with peanut butter chips

      Flavor 11 -     Chocolate-covered-crunchy-peanut-butter-candy with chocolate chips

      Style N -        Chocolate peanut butter chip cookies

      Style Q -        White chocolate chip cookies (regular, chunk, or mini chips)

      Flavor 2 -      With cranberries

      Style U -        Cookies with pan coated peanut butter disks

    Bake type b -    Soft and chewy

      Style G -        Coconut macaroons

      Flavor 2 -      Chocolate chip

      Style J -        Chocolate chip cookies (regular, chunk, or mini chips)

      Flavor 10 -     Caramel with chocolate chips

##### Packages.

  Package E -        Unitized Group Ration™ (UGR™) – Heat & Serve™ (UGR-H&S™)

  Package K -        Unitized Group Ration™ – Express™ (UGR-E™)

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**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 this Packaging Requirements and Quality Assurance Provisions document. 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 noncomparable to the product standard, the contractor shall submit a replacement FA or PDM for approval. In any event, all product produced must meet all requirements of this document including product standard comparability.

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

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

D. Net weight.

(1) For Type I, Style G, Flavor 2, Bake type b, Class 2 – Coconut macaroons, Chocolate chip cookie, Regular, Soft and Chewy there shall be 34 cookies per polymeric tray. The net weight of an individual polymeric tray shall be not less than 30 ounces (851 grams).

(2) For all other cookies, there shall be 27 cookies per polymeric tray. The net weight of an individual polymeric tray shall be not less than 37 ounces (1049 grams).

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. Analytical requirements.

(1) Fat. The *trans* fat content shall be not greater than 0 grams per serving.

(+2) Oxygen. The oxygen content of the filled and sealed polymeric tray shall not exceed 0.30 percent.

**SECTION D**

**D-1 PACKAGING**

A. Preservation. Twenty seven (27) or thirty four (34) as specified, intact cookies plus the appropriate number of oxygen scavengers shall be filled and sealed into polymeric trays and the trays shall conform to the requirements of section 3 of MIL-PRF-32004, Packaging of Food in Polymeric Trays, Type II Oven-baked products. Government verification testing and inspection of trays and lids shall be in accordance with Section 4 of MIL-PRF-32004 and the Quality Assurance Provisions of Section E of this document. The requirement for protective sleeves shall not apply to Type II Oven-baked products.

B. Polymeric tray closure. The filled and sealed tray shall be securely closed.

C. Oxygen scavenger. The oxygen scavenger shall be constructed of materials that are safe for direct or indirect food contact and shall be suitable for use with edible products. The oxygen scavenger shall be in compliance with all applicable FDA regulations.

**D-2 LABELING**

A. Polymeric tray body. The polymeric tray body shall be clearly printed or stamped, in a manner that does not damage the tray, with permanent ink of any contrasting color, which is free of carcinogenic elements. One end of the polymeric tray (see figure 1 of MIL-PRF-32004) shall be marked with the product name and number of portions. If the tray body end markings are not readily legible in low light conditions, a small, easily legible label shall be applied, but not over any existing tray markings. All other markings may be applied along the tray body side. The product name, lot number and filling equipment number shall be applied at the time of tray sealing. 1/

Tray body markings shall include:

(1) Product name. Commonly used abbreviations may be used.

(2) Tray code includes: 2/  
Lot Number

1/ As an alternate method, tray body markings may be clearly printed or stamped onto the polymeric tray lid at the time of tray sealing, in a manner that does not damage the lid, with

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permanent ink of any contrasting color, which is free of carcinogenic elements, provided that the required markings are applied onto the tray body prior to packing for shipment to ration assembler.

2/ The lot number shall be expressed as a four digit Julian code. The first digit shall indicate the year of production and the next three digits shall indicate the day of the year (Example, 14 February 2014 would be coded as 4045). The Julian code shall represent the day the product was packaged into the tray and the tray sealed. Sublotting (when used) shall be represented by an alpha character immediately following the four digit Julian code. Following the four digit Julian code and the alpha character (when used), the other required code information shall be printed in the sequence as listed above.

B. Polymeric tray lid. The lid shall be clearly printed or stamped, in a manner that does not cause damage. Permanent ink of any contrasting color, which is free of carcinogenic elements, shall be used. As an alternate labeling method, a pre-printed self-adhering 0.002 inch thick clear polyester label printed with indelible contrasting color ink may be used.

Note: The font tested by Natick was Microsoft Helvetica. The font used shall be similarly clear/easy to read as Helvetica. The recommended font sizes are as follows: 22 for the product name, 14 for “yield” and “to heat in water.” If an additional note is required on the label, such as “fluff before serving,” it should also be in font size 14. All other information should be in font size 9.

(1) Lid labeling shall include:

Product name and flavor  
Ingredients  
Net weight  
Name and address of packer  
“Nutrition Facts” label in accordance with the Nutrition Labeling and Education Act (NLEA) and all applicable FDA regulations

(2) Lid labeling shall also show the following statements:

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**YIELD:**

(1) For Type I, Style G, Flavor 1, Bake type b, Class 2 – Regular, Coconut Macaroons, Chocolate chip, Soft and chewy yield statement shall be as follows:

Serves 17 portions of 2 cookies each.

(2) For all other cookies yield statement shall be as follows:

Serves 27 portions of 1 cookie each.

**TO OPEN:** Using a clean knife, cut the lidding around the inside perimeter of the tray seals.

**SUGGESTION:** Cut lid along 3 sides and fold over uncut portion. Fold back to keep unused portions protected.

**D-3 PACKING**

A. Packing. Four filled, sealed and processed polymeric trays shall be packed in a fiberboard box conforming to style RSC-L, of ASTM D5118/D5118M, Standard Practice for Fabrication of Fiberboard Shipping Boxes. The fiberboard shall conform to type CF, class D, variety SW, burst grade 275 of ASTM D4727/D4727M, Standard Specification for Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes. The trays shall be stacked with lids oriented upright. Fiberboard pads shall be placed between the trays and on the top and bottom of the stacked trays. The pad dimensions shall be not less than 1/8 inch of the full length and width inside dimensions of the box and shall be fabricated of class D, burst grade 275 fiberboard. Each box shall be closed in accordance with ASTM D1974/D1974M, Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes.

**D-4 UNITIZATION**

A. Unit loads. Boxes shall be arranged in unit loads in accordance with DLA Troop Support Form 3507, Loads, Unit: Preparation of Semiperishable Subsistence Items.

**D-5 MARKING**

A. Shipping containers and unit loads. Shipping containers and unit loads shall be marked in accordance with DLA Troop Support Form 3556, Marking Instructions for Boxes, Sacks, and Unit Loads of Perishable and Semiperishable Subsistence.

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## **SECTION E INSPECTION AND ACCEPTANCE**

The following quality assurance criteria, utilizing ANSI/ASQ Z1.4, Sampling Procedures and Tables for Inspection by Attributes, are required. Unless otherwise specified, single sampling plans indicated in ANSI/ASQ Z1.4 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 appearance, odor, flavor, and texture. Any failure to conform to the performance requirements or any appearance or palatability failure shall be cause for rejection of the lot.

(2) Periodic review evaluation. 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:

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US Army Research, Development and Engineering Command  
Natick Soldier Research, Development and Engineering Center  
RDNS-CFF  
15 Kansas Street  
Natick, MA 01760-5056

One lot shall be randomly selected during each calendar month of production or as otherwise specified in the contract. Two (2) sample units shall be randomly selected from that one production lot. The two (2) sample units shall be shipped to Natick within five (5) working days from the end of the production month from which they are randomly selected and upon completion of all USDA inspection requirements. The sample units will be evaluated for overall quality against the current first article or product demonstration model.

(3) Conformance inspection. Conformance inspection shall include the examinations/tests and 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 A-A-20295D and Section C of this Packaging Requirements and Quality Assurance Provisions document utilizing the double sampling plans indicated in ANSI/ASQ Z1.4. The lot size shall be expressed in trays. The sample unit shall be the contents of one tray. The inspection level shall be S-3 and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 4.0 for major defects and 6.5 for minor defects. Defects and defect classifications are listed in table I. The filled and sealed polymeric trays shall be brought to room temperature (65°F to 75°F).

TABLE I. Product defects 1/ 2/ 3/

<u>Category</u>		<u>Defect</u>
<u>Major</u>	<u>Minor</u>	<u>General</u>
101		Product not class, type, bake type, style, or flavor as specified.
102		Product not evenly baked (evidence of scorching or burning).
103		Polymeric tray does not contain intact oxygen scavenger(s). <del>3/</del> <u>4/</u>

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TABLE I. Product defects 1/ 2/ 3/ - Continued

Category	Defect
<u>Major</u>	<u>Minor</u>
104	Crushed cookie(s). <del>4/</del> <b>5/</b>
	201 Broken cookie(s). <del>5/</del> <b>6/</b>
	<u>Class 2, type I, bake type a, style I, flavor 5,- Oatmeal cookies, Chocolate chip</u>
105	Oatmeal chocolate chip cookie(s) not a sweet baked oatmeal or chocolate flavor.
	202 Oatmeal chocolate chip cookie(s) exterior color or interior crumb color not a light tan to medium brown color.
	203 Oatmeal chocolate chip cookie(s) surface or crumb does not have chocolate chips distributed throughout.
	204 Oatmeal chocolate chip cookie(s) not crispy or not crunchy or not slightly crumbly, with a firm bite.
	<u>Class 2, type I, bake type a, style J, flavor 7- Chocolate chip cookies (regular, chunk, or mini chips), Peanut butter with chocolate chips</u>
106	Peanut butter chocolate chip cookie(s) not a peanut butter with a distinct chocolate flavor.
	205 Peanut butter chocolate chip cookie(s) exterior color or interior crumb color not a tan to medium brown color.
	206 Peanut butter chocolate chip cookie(s) not crispy or not crunchy or not slightly crumbly, with a firm bite.
	207 Peanut butter chocolate chip cookie(s) do not have a uniform distribution of chocolate chips.



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TABLE I. Product defects 1/ 2/ 3/ - Continued

Category		Defect
<u>Major</u>	<u>Minor</u>	
		<u>Class 2, type I, bake type a, style J, flavor 9– Chocolate chip cookies (regular, chunk, or mini chips), Chocolate chunks with peanut butter chips</u>
107		Chocolate chip, chocolate chunks with peanut butter chips cookie(s) not a distinct chocolate flavor.
	208	Chocolate chip, chocolate chunks with peanut butter chips cookie(s) exterior color or interior crumb color not a tan to medium brown color.
	209	Chocolate chip, chocolate chunks with peanut butter chips cookie(s) not crispy or not crunchy or not slightly crumbly, with a firm bite.
	210	Chocolate chip, chocolate chunks with peanut butter chips cookie(s) does not have a uniform distribution of dark chocolate chunks or peanut butter chips.
		<u>Class 2, type I, bake type a, style J, flavor 11– Chocolate chip cookies (regular, chunk, or mini chips), Chocolate-covered-crunchy-peanut-butter-candy with chocolate chips</u>
108		Chocolate chip cookies with chocolate-covered-crunchy-peanut-butter-candy and chocolate chips do not have a sweet buttery or milk-chocolate-covered-crunchy-peanut-butter candy odor or flavor.
	211	Chocolate chip cookies with chocolate-covered-crunchy-peanut-butter-candy and chocolate chips not crispy or not firm.
	212	Chocolate chip cookies with chocolate-covered-crunchy-peanut-butter-candy and chocolate chips do not have a uniform distribution of pieces of crunchy peanut butter chocolate candy or chocolate chips.

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TABLE I. Product defects 1/ 2/ 3/ - Continued

<u>Category</u>		<u>Defect</u>
<u>Major</u>	<u>Minor</u>	
		<u>Class 2, type I, bake type a, style N– Chocolate peanut butter chip cookies</u>
109		Chocolate peanut butter chip cookie(s) not a milk chocolate with peanut butter chips odor or flavor.
	213	Chocolate peanut butter chip cookie(s) not round in shape or not a milk chocolate color with a cracked surface.
	214	Chocolate peanut butter chip cookie(s) do not have evenly disbursed peanut butter chips.
	215	Chocolate peanut butter chip cookie(s) not crispy or not firm.
		<u>Class 2, type I, bake type a, style Q, flavor 2– White chocolate chip cookies (regular, chunk, or mini chips), With cranberries</u>
110		White chocolate chip cookie(s) with cranberries not a sweet cranberry or white chocolate odor or flavor.
	216	White chocolate chip cookie(s) with cranberries exterior color or interior crumb not a light tan to medium brown color.
	217	White chocolate chip cookie(s) with cranberries not round in shape.
	218	White chocolate chips do not have a soft bite.
	219	Small cranberry pieces not distributed throughout surface or interior.
	220	White chocolate chip cookie(s) with cranberries not crispy or not crunchy or not slightly crumbly, with a firm bite.

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TABLE I. Product defects 1/ 2/ 3/ - Continued

Category		Defect
<u>Major</u>	<u>Minor</u>	
		<u>Class 2, type I, bake type a, style U– Cookies with pan coated peanut butter disks</u>
111		Cookie(s) with pan coated peanut butter disks not a sweet vanilla odor or not a brown sugar, peanut butter, vanilla flavor.
	221	Cookie(s) with pan coated peanut butter disks exterior color or interior crumb not a light tan to medium brown color.
	222	Cookie(s) with pan coated peanut butter disks not typically round in shape.
	223	Pan coated peanut butter disks not evenly distributed throughout the surface or interior.
	224	Cookie(s) with pan coated peanut butter disks not crispy or not crunchy or not slightly crumbly, with a firm bite or not with a crunch from the pan coated candies.
		<u>Class 2, type I, bake type b, style G, flavor 2– Coconut macaroons, Chocolate chip</u>
112		Coconut macaroons, chocolate chip cookie(s) not a creamy, sweet, distinct coconut flavor or not a distinct chocolate flavor.
	225	Coconut macaroons, chocolate chip cookie(s) not light tan to light brown in color.
	226	Coconut macaroons, chocolate chip cookie(s) not round or not soft or not moist with flakes of coconut.
	227	Coconut macaroons, chocolate chip cookie(s) do not have a uniform distribution of chocolate chips.

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TABLE I. Product defects 1/ 2/ 3/ - Continued

<u>Category</u>	<u>Defect</u>
<u>Major</u>	<u>Minor</u>
	228 Less than 34 coconut macaroons, chocolate chip cookies per tray.
	229 Net weight of an individual polymeric tray of coconut macaroons, chocolate chip cookies less than 30 ounces (851 grams).
	<u>Class 2, type I, bake type b, style J, flavor 10– Chocolate chip cookies (regular, chunk, or mini chips), Caramel with chocolate chips</u>
113	Caramel with chocolate chips cookie(s) do not have a distinct caramel or do not have a distinct chocolate flavor.
	230 Caramel with chocolate chips cookie(s) not a light tan color with a slightly cracked surface or not round shape.
	231 Caramel with chocolate chips cookie(s) do not have a uniform distribution of chocolate chips.
	232 Caramel with chocolate chips cookie(s) not soft or not slightly chewy.
	<u>Net weight <del>6/</del> 7/</u>
	233 Less than 27 cookies in a tray.
	234 Net weight of an individual polymeric tray less than 37 ounces (1049 grams).

1/ Presence of any foreign materials such as, but not limited to dirt, insect parts, hair, glass, wood, or metal, or any foreign odors or flavors such as, but not limited to burnt, scorched, rancid, sour, stale, musty or moldy 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.

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~~3/~~ The *trans* fat content shall be verified by the NLEA “Nutrition Facts” label. Product not conforming to the *trans* fat content as specified in Section C of this document shall be cause for rejection of the lot.

~~3/~~ ~~4/~~ Construction of the oxygen scavenger and compliance with FDA regulations will be verified by CoC.

~~4/~~ ~~5/~~ Thirty (30) grams or more of cookie crumbs, i.e., not discernible pieces, per polymeric tray.

~~5/~~ ~~6/~~ More than half the cookies broken into three or more pieces.

~~6/~~ ~~7/~~ Applies to all varieties of cookies except for Class 2, Type I, Bake type b, Style G, Flavor 2– Coconut macaroons, Chocolate chip.

**B. Methods of inspection.**

(1) Shelf life. The contractor shall provide a Certificate of Conformance that the product has a 36 month 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 quality scale to be considered acceptable.

(2) Net weight. The net weight of the filled and sealed polymeric tray shall be determined by weighing each sample unit on a suitable scale tared with a representative empty tray, ovenable tray insert (if utilized), appropriate number of oxygen scavengers, and lid. Results shall be reported to the nearest 1 ounce or to the nearest 1 gram.

(3) Oxygen content testing. Eight filled and sealed polymeric trays shall be randomly selected from one production lot and individually tested for oxygen content. Testing shall be accomplished after the filled and sealed polymeric trays have been allowed to equilibrate at room temperature for not less than 72 hours from the time of sealing. Test results shall be reported to the nearest 0.01 percent. Government verification will be conducted through actual testing by a Government laboratory. Any individual result not conforming to the oxygen content requirement shall be classified as a major defect and cause for rejection of the lot.

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(4) Moisture content testing. Moisture content testing shall be in accordance with A-A-20295D.

**E-6 QUALITY ASSURANCE PROVISIONS (PACKAGING AND PACKING MATERIALS, POLYMERIC TRAY)**

A. Packaging and labeling.

(1) Polymeric tray testing. For purposes of clarification, the polymeric tray without the lid shall be referred to as the “tray” and the polymeric tray with the lid shall be referred to as the “container”. The container and container materials shall be examined for the characteristics listed in table I of MIL-PRF-32004, Packaging of Food in Polymeric Trays. The lot size, sample unit, and inspection level criteria are provided in table II for each of the test characteristics. Any test failure shall be classified as a major defect and shall be cause for rejection of the lot. For rough handling survivability at frozen temperature, polymeric tray survival rate shall be at least 85 percent.

TABLE II. Polymeric tray quality assurance criteria

Characteristic	<u>Prior to processing</u>		
	Lot size expressed in	Sample unit	Inspection level
Tray configurations and dimensions	Trays	1 tray	S-1
Oxygen gas transmission rate of tray	Trays	1 tray	S-1
Oxygen gas transmission rate of lid	Yards	1/2 yard	S-1
Water vapor transmission rate of tray	Trays	1 tray	S-1
Water vapor transmission rate of lid	Yards	1/2 yard	S-1
Camouflage	Containers	1 container	S-1

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Characteristic	After processing		
	Lot size expressed in	Sample unit	Inspection level
Processing	Trays	1 tray	S-2
Rough handling survivability	Test containers	1 container	S-2
Headspace (vacuum) <u>1/</u>	Containers	1 container	S-1
Closure seal	Containers	1 container	S-1
Internal pressure	Containers	1 container	S-1
Lid opening	Containers	1 container	S-1

1/ Lack of visible gap between straight edge and lidding material along entire length of lidding and/or lack of tautness by the lidding shall not be scored as defects.

(2) Examination of container. The container shall be examined for the defects listed in table II of MIL-PRF-32004 and the labeling defects listed in table III. The lot size shall be expressed in containers. The sample unit shall be one processed and labeled container. The inspection level shall be I and the AQL, expressed in terms of defects per hundred units, shall be 0.65 for major A defects, 2.5 for major B defects and 4.0 for minor defects. Fifty sample units shall be examined for critical defects. The finding of any critical defect shall be cause for rejection of the lot.

TABLE III. Container labeling defects

Category		Defect
<u>Major A</u>	<u>Minor</u>	
101		Polymeric tray lid or body labeling missing or incorrect or illegible.
	201	When a pre-printed self-adhering label is used, the label not adhering to tray lid (for example, label raised or peeled back from edge to corner) or presence of any areas of gaps along the perimeter of the label where the label is not properly adhered.

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(3) Label adhesive examination. When self-adhering labels are used, the adhesive shall be tested in accordance with ASTM D3330/D3330M, Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape. In lieu of testing, a Certificate of Conformance (CoC) shall be provided.

**B. Packing.**

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

Category	Defect
<u>Major</u>	<u>Minor</u>
101	Marking missing or incorrect or illegible.
102	Inadequate workmanship. <u>1/</u>
201	Arrangement or number of polymeric trays not as specified.

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.

**C. Unitization.**

(1) Unit load examination. The unit load shall be examined in accordance with the requirements of DLA Troop Support Form 3507, Loads, Unit: Preparation of Semiperishable Subsistence Items. Any nonconformance shall be classified as a major defect.



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## **SECTION J REFERENCE DOCUMENTS**

Unless otherwise specified, the applicable version of these documents is that which is active on the date of the solicitation or contract.

### DLA Troop Support Forms

Form 3507	Loads, Unit: Preparation of Semiperishable Subsistence Items
Form 3556	Marking Instructions for Boxes, Sacks, and Unit Loads of Perishable and Semiperishable Subsistence

### MILITARY SPECIFICATIONS

MIL-PRF-32004	Packaging of Food in Polymeric Trays
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### GOVERNMENT PUBLICATIONS

Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder (21 CFR Parts 1-199) and (9 CFR Parts 1-391)

### NON-GOVERNMENTAL STANDARDS

AMERICAN SOCIETY FOR QUALITY (ASQ) [www.asq.org](http://www.asq.org)

ANSI/ASQ Z1.4	Sampling Procedures and Tables for Inspection by Attributes
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ASTM INTERNATIONAL [www.astm.org](http://www.astm.org)

D1974/D1974M	Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes
D3330/D3330M	Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape
D4727/D4727M	Standard Specification for Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes

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D5118/D5118M

Standard Practice for Fabrication of Fiberboard  
Shipping Boxes

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## For DLA Troop Support Website Posting

RDNS-SEC-EM

5 January 2017

TO: Defense Logistics Agency (DLA) - Troop Support – Subsistence DSCP-FTRE

SUBJECT: ES17-012 (DSCP-SS-17-00231); Document change request; change the fat content requirement by adding a *Trans* Fat Free requirement to PKG&QAP A-A-20295D Cookies Packaged in a Polymeric Tray, Shelf Stable and PCR-C-024D, Cakes and Brownies, Packaged in a Polymeric Tray, Shelf Stable.

1. Natick has initiated an Engineering Support change to incorporate a new requirement for *Trans* Fat Free in PKG&QAP A-A-20295D Cookies Packaged in a Polymeric Tray, Shelf Stable and PCR-C-024D, Cakes and Brownies, Packaged in a Polymeric Tray, Shelf Stable.
2. Research indicates that there may be a correlation between dietary intake of Trans Fatty Acid (TFA) and coronary heart disease (CHD), weight control, inflammatory response and immune dysfunction.
3. TFAs are formed when liquid oils are made into solid fats like shortening and hard margarine. However, a small amount of TFAs are found naturally, primarily in animal-based foods, including beef, butter and milk, although most TFAs in the diet come from partially hydrogenated oils.
4. TFAs have many functional benefits in food processing, particularly for baked products, including: increased oxidative stability; improved texture; and extended shelf life; all of which are extremely important to combat ration components.
5. CFD initiated research to assess the occurrence and reduction of TFAs in combat ration components. Newly formulated TFA free products were produced and subjected to accelerated storage studies (6 months at 100°F) to determine the effect of the new formulation on quality, acceptability, and shelf life.

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6. Samples for bakery items that had been stored for 6 months at 100°F were evaluated by trained sensory panelists and results indicated the TFA free samples met shelf life performance requirements.

7. Based on these findings, Natick recommends the addition of a requirement for Cakes/Brownies and Cookies to have a *trans* fat content not greater than 0 grams per serving.

8. The Service Representatives were contacted and their replies were:

Army: Concurs with Natick

Marines: Concurs with Natick

9. Natick submits the following changes to the subject documents for all current, pending and future procurements until the document is formally amended or revised.

Changes to PKG&QAP A-A-20295D Cookies Packaged in a Polymeric Tray, Shelf Stable:

a. page 2, Paragraph C-2, F, change (1) to (2) and insert “(1) Fat. The *trans* fat content shall be not greater than 0 grams per serving.”

b. page 7, Paragraph E-5, TABLE I, Header, insert a new footnote “3”.

c. page 7, Paragraph E-5, TABLE I, major defect 103, delete footnote “3” insert footnote “4”.

d. page 8, Paragraph E-5, TABLE I, major defect 104, delete footnote “4” insert footnote “5”.

e. page 8, Paragraph E-5, TABLE I, minor defect 201, delete footnote “5” insert footnote “6”.

f. page 8 through page 12 Paragraph E-5, TABLE I, Header (in all Continued Headers), insert a new footnote “3”.

g. page 12, Paragraph E-5, TABLE I, Net weight, delete footnote “6” insert footnote “7”.

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h. page 13, Paragraph E-5, TABLE I, Footnotes, after footnote 2/, insert the following new footnote “3/ The *trans* fat content shall be verified by the NLEA “Nutrition Facts” label. Product not conforming to the *trans* fat content as specified in Section C of this document shall be cause for rejection of the lot.” Renumber footnotes 3/ through 6/ accordingly.

Changes to PCR-C-024D, Cakes and Brownies, Packaged in a Polymeric Tray, Shelf Stable:

a. page 7, Paragraph C-2, H, (1) Type I fat, after last sentence, insert “The *trans* fat content shall be not greater than 0 grams per serving.”

b. page 7, Paragraph C-2, H, (2) Type II fat, insert “The *trans* fat content shall be not greater than 0 grams per serving.”

c. page 16, Paragraph E-5, TABLE I, Header, insert a new footnote “4/”.

d. page 16, Paragraph E-5, TABLE I, major defect 103, delete footnote “4/” insert footnote “5/”.

e. page 16, Paragraph E-5, TABLE I, minor defect 204, delete footnote “5/” insert footnote “6/”.

f. page 17 through page 23 Paragraph E-5, TABLE I, Header (in all Continued Headers), insert a new footnote “4/”.

g. page 23, Paragraph E-5, TABLE I, minor defect 302, delete footnote “6/” insert footnote “7/”.

h. pages 24 and 25, Paragraph E-5, TABLE I, Header, insert a new footnote “4/”.

i. page 25, Paragraph E-5, TABLE I, minor defect 330, delete footnote “7/” insert footnote “8/”.

j. page 25, Paragraph E-5, TABLE I, minor defect 331, delete footnote “8/” insert footnote “9/”.

k. page 25, Paragraph E-5, TABLE I, minor defect 332, delete footnote “9/” insert footnote “10/”.

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1. page 26, Paragraph E-5, TABLE I, Footnotes, after footnote 3/, insert the following new footnote “4/ The *trans* fat content shall be verified by the NLEA “Nutrition Facts” label. Product not conforming to the *trans* fat content as specified in Section C of this document shall be cause for rejection of the lot.” Renumber footnotes 4/ through 9/ accordingly.