

INCH-POUND

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MILITARY SPECIFICATION

CHERRY DESSERT, TRAY PACK

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers cherry dessert in tray pack cans for use by the Department of Defense as a component of operational rations.

2. APPLICABLE DOCUMENTS

2.1 Government documents.

- * 2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.1).

SPECIFICATIONS

FEDERAL

PPP-B-636 - Boxes, Shipping, Fiberboard

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be used in improving this document should be addressed to: U.S. Army Natick Research, Development, and Engineering Center, Natick, MA 01760-5014 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8940

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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- MIL-L-1497 - Labeling of Metal Cans for Subsistence Items
- MIL-L-35078 - Loads, Unit: Preparation of Semiperishable Subsistence Items; Clothing, Personal Equipment and Equipage; General Specification For
- MIL-C-44340 - Can, Tray Pack

STANDARDS

MILITARY

- MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
- MIL-STD-129 - Marking for Shipment and Storage
- MIL-STD-900 - Bacterial Standards for Starches, Flours, Cereals, Alimentary Pastes, Dry Milks and Sugars Used in the Preparation of Thermostabilized Foods for the Armed Forces

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.1.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

ENVIRONMENTAL PROTECTION AGENCY (EPA)

National Primary Drinking Water Regulations

(Copies are available from the Office of Drinking Water, Environmental Protection Agency, WH550D, 401 M Street, S.W., Washington, DC 20460.)

U.S. DEPARTMENT OF AGRICULTURE (USDA)

United States Standards for Condition of Food Containers

(Copies are available from the Chairperson, Condition of Container Committee, Agricultural Marketing Service, U.S. Department of Agriculture, Room 2506, South Building, P.O. Box 96456, Washington, DC 20090-6456.)

United States Standards for Grades of Red Sour Cherries for Manufacture

(Copies are available from the Director, Fruit and Vegetable Division, Agricultural Marketing Service, U.S. Department of Agriculture, Room 2077, South Building, P.O. Box 96456, Washington, DC 20090-6456.)

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS)

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

(Copies are available from the Superintendent of Documents, U.S. Government
Printing Office, Washington, DC 20402-0001.)

2.2 Non-Government publications. The following documents form a part of
this document to the extent specified herein. Unless otherwise specified, the
issues of the documents which are DoD adopted are those listed in the issue of
the DODISS cited in the solicitation. Unless otherwise specified, the issues
of documents not listed in the DODISS are the issues of the documents cited in
the solicitation (see 6.1).

AMERICAN ASSOCIATION OF CEREAL CHEMISTS (AACC)

Approved Methods of the American Association of Cereal Chemists

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 3330 - Peel Adhesion of Pressure-Sensitive Tape

(Application for copies should be addressed to the American Society for
Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1187.)

ASSOCIATION OF OFFICIAL ANALYTICAL CHEMISTS (AOAC)

Official Methods of Analysis of the Association of Official Analytical
Chemists

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

NATIONAL ACADEMY OF SCIENCES

Food Chemicals Codex

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

(Non-Government standards and other publications are normally available from
the organizations that prepare or distribute the documents. These documents
also may be available in or through libraries or other informational
services.)

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2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 First article. When specified (see 6.1), a sample shall be subjected to first article inspection (see 6.2) in accordance with 4.4.

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

3.2.1 Cherries, red, sour, fresh. The fresh, red sour cherries shall be U.S. No. 2 or better of the United States Standards for Grades of Red Sour Cherries for Manufacture.

3.2.2 Cherries, red, sour, pitted, individually quick frozen (IQF). The IQF cherries may be sweetened or unsweetened and shall have been prepared from cherries meeting the requirements of 3.2.1 and 3.3.1. The IQF cherries shall be held for not more than 6 months from date of freezing to canning. The IQF cherries shall be free flowing from the package and shall not show evidence of thawing and re-freezing.

3.2.3 Sugar. Sugar shall be white, refined, sucrose, granulated cane or beet, or a combination of both and shall comply with MIL-STD-900.

3.2.4 Water. Water used for formulation, ice making, and washing shall conform to the National Primary Drinking Water Regulations.

3.2.5 Starch, waxy maize, modified. The starch shall be a white, odorless, finely pulverized, modified waxy maize starch for use in canned foods. The modified starch shall demonstrate initial viscosity development in the temperature range of 140° to 170°F and a typical viscosity (be fully hydrated) at common retort temperatures. The starch shall resist breakdown at low pH, under shear stress, and under conditions of cold storage. The starch shall be bland with essentially no cereal or starch taste and shall comply with MIL-STD-900.

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

3.2.7 Fumaric acid. Fumaric acid shall comply with the Food Chemicals Codex.

3.2.8 Citric acid. Citric acid shall comply with the Food Chemicals Codex.

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3.2.9 Color, FD&C Red No. 40. FD&C Red No. 40 color shall be FDA certified.

3.3 Preparation and processing. Processing shall be on a continuous basis.

3.3.1 Fresh cherry preparation. The fresh cherries shall be sorted to remove objectionable material and defective cherries. The sorted cherries shall be completely pitted. The pitted cherries shall be placed in cold water to plump them and then shall be used in product preparation or individually quick frozen within 4 hours after pitting.

3.3.2 IQF cherry preparation. The IQF cherries shall be used in product preparation while still in the frozen form.

3.3.3 Preparation of the dessert. The cherry dessert shall be formulated as follows:

<u>Ingredient</u>	<u>Percent by weight</u>
Cherries	66.0 ^{1/}
Sugar	17.6 ^{1/}
Water	13.299
Starch, waxy maize, modified ^{2/}	3.0
Salt ^{3/}	0.1
Color, Red No. 40, FD&C	0.001

^{1/} When cherries are sweetened with added sugar, the added sugar shall be included as part of the 17.6 percent total sugar content.

^{2/} The total amount of starch in the formula may be adjusted, if necessary, to ensure compliance with the finished product viscosity requirements.

^{3/} The total amount of salt shall be adjusted, as necessary, to ensure compliance with finished product salt requirements.

NOTE: Fumaric or citric acid may be used to achieve the pH specified in 3.5.

a. The salt, sugar, and approximately 80 percent of the water shall be mixed and heated until the sugar is completely dissolved.

b. The cherries shall be added gradually to the mixture and heated to 185°F with continuous agitation.

c. A thin slurry of the remaining water and the starch and color shall be prepared and added to the above. The mixture shall be heated to 185° to 190°F with continuous agitation.

d. The volume of the final mixture shall be adjusted with water to compensate for evaporation loss during heating and holding.

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e. The cooked product shall be filled within 2 hours after cooking. The temperature of the prepared product shall be maintained in the temperature range of 185° to 190°F until filling into the cans, or at not less than 150°F if the cans are to be thermoprocessed after filling and sealing (see 3.4.2).

3.4 Tray pack filling and thermostabilizing. Each tray pack can (see 5.1.1) shall be filled with product such as to conform to the finished product requirements (see 3.5) and to either 3.4.1 or 3.4.2.

* 3.4.1 Hot fill method.

a. The temperature of the product at the time of filling shall be in the temperature range of 185° to 190°F.

b. Each can shall be hermetically sealed at a product temperature of not less than 180°F to ensure compliance with finished product requirements (see 3.5).

c. The cans shall be inverted immediately after sealing, held for 5 minutes, and then rapidly cooled to 100°F or less.

* 3.4.2 Thermoprocessing method.

a. The temperature of the product at time of filling shall be in the temperature range of 150° to 190°F.

b. Immediately after filling, each can shall be hermetically sealed under a vacuum established by a processing authority and specified in the scheduled process so as to ensure compliance with finished product requirements (see 3.5n).

c. The filled and sealed tray pack cans shall be thermostabilized by retorting at 220°F or below to an internal product temperature of 185° to 195°F. The product shall then be immediately cooled to 100°F or less.

d. The filled and sealed tray pack cans shall be in the retort process within 2 hours after product preparation.

3.5 Finished product requirements. The finished product shall comply with the following requirements:

a. There shall be no foreign material such as, but not limited to, dirt, insect parts, hair, wood, glass, or metal.

b. There shall be no foreign odor or flavor such as, but not limited to, burnt, scorched, stale, sour, rancid, or moldy.

c. There shall be no color foreign to the product.

d. The average net weight shall be not less than 112 ounces.

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- e. No individual can shall contain less than 110 ounces of product.
- f. No individual can shall contain less than 36.0 ounces drained weight of cherries.
- g. The average drained weight of cherries shall be not less than 38.0 ounces.
- h. The cherries shall not be mushy, hard, tough, or rubbery.
- i. The sauce shall have a glossy appearance and shall not be lumpy.
- j. The viscosity of the sauce shall be not less than 3.5 cm per 10 seconds nor greater than 11.0 cm per 10 seconds when determined by a Bostwick Consistometer (see 4.5.3.4).
- k. The pH shall be in the range of 3.2 to 3.8 inclusive.
- l. There shall be no evidence of syneresis.
- m. The product shall show no evidence of excessive heating (materially darkened or scorched).
- n. Filled, sealed, and hot filled or retorted cans shall show evidence of proper vacuum as determined by concavity of the can lid (see 4.5.6).
- o. The salt content shall be not greater than 0.3 percent nor less than 0.1 percent.

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

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

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

4. QUALITY ASSURANCE PROVISIONS

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

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

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

- a. First article inspection (see 4.4).
- b. Quality conformance inspection (see 4.5).

4.4 First article inspection. When a first article is required (see 6.1), it shall be inspected in accordance with the quality assurance provisions of this specification and evaluated for overall appearance and palatability. Any failure to conform to the quality assurance provisions of this specification or any appearance or palatability failure shall be cause for rejection of the first article.

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

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

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

4.5.2 In-process examination. In-process examination shall be performed to determine conformance to the preparation, processing, can interior coating, filling, sealing, and packing requirements. Any nonconformance revealed by actual examination or by review of records of time, temperature, and formulation or of other valid documents shall be cause for rejection of the involved product.

4.5.3 Tray pack inspection. The USDA reserves the right to separate the inspection lot into smaller inspection lots.

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4.5.3.1 Net weight examination. Randomly select 30 filled and sealed tray pack cans from the inspection lot and weigh separately. Subtract the average tare weight (determined by randomly selecting and weighing 30 of the empty tray pack cans and lids used in preparing the product and dividing the total weight by 30) from the weight of each tray pack in the sample. The results shall be reported to the nearest 1 ounce. If the average net weight is less than 112 ounces or if the net weight of any individual can is less than 110 ounces, the lot shall be rejected.

4.5.3.2 Double sampling plan for product inspection. The finished product shall be examined for the defects listed in table I utilizing the double sampling plans indicated in MIL-STD-105. The lot size shall be expressed in tray pack cans. The sample unit shall be one filled and sealed tray pack can. 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.

TABLE I. Product defects 1/ 2/ 3/

Category	Defect
<u>Major</u>	
101	Cherries mushy, hard, tough, or rubbery
102	Sauce is lumpy
103	Sauce does not have a glossy appearance
104	Product exhibits syneresis
105	Product shows evidence of excessive heating (materially darkened or scorched)
106	Drained weight of cherries less than 36.0 ounces <u>4/</u> <u>5/</u>

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

2/ Product not equal to or better than the approved preproduction sample in palatability and overall appearance shall be cause for rejection of the lot (see 3.5.1).

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- 3/ Interior of filled and sealed cans shall be examined visually for coating defects during product examination. Suspected rust spots shall be verified by testing in accordance with 4.5.7. Any spot verified as a rust spot shall be cause for rejection of the lot. Any scratch or fracture that penetrates through the coating of a can shall be cause for rejection of the lot.
- 4/ To determine drained weight, the free liquid in the can shall be poured off and saved for viscosity testing (see 4.5.3.4) and the remaining contents shall be poured into a flat bottom container and a minimum of three times the tray pack can's volume of 190° to 212°F water shall be added to the container so as to cover the contents. The contents and water shall be agitated so as to remove syrup without breaking up the cherries. The contents shall then be poured into a U.S. Standard No. 8 sieve in a manner that will distribute the product over the sieve without breaking the cherries. Sieve area shall be such that the distributed product does not completely cover all the openings of the sieve. The sieve shall be tilted at approximately a 45° angle and allowed to drain for 2 minutes before determining the drained weight by subtracting the sieve tare weight from the gross weight. The drained weight shall be reported to the nearest 0.1 ounce.
- 5/ The lot shall be rejected if the sample average drained weight of cherries is less than 38.0 ounces.

4.5.3.3 pH testing. Three tray packs shall be selected at random from the lot and individually tested for pH in accordance with the applicable chapter for pH determination of the Official Methods of Analysis of the Association of Official Analytical Chemists. The results shall be reported to the nearest 0.1. If any pH reading is less than 3.2 or more than 3.8, it shall be classified as a major defect and the lot shall be rejected.

4.5.3.4 Viscosity testing. The free liquid collected from each of the cans in the sample selected for drained weight inspection (see 4.5.3.2 and footnote 4/ to table I) shall be strained through a U.S. Standard No. 8 sieve. The strained free liquid shall be individually tested for viscosity as follows: (see 6.4).

Instrument: Bostwick Consistometer

Catalog Number: 23270-004	or	Catalog Number: 15-347-50
VWR Scientific Company		Fisher Scientific
P.O. Box 7900		585 Alpha Drive
San Francisco, CA 94120		Pittsburgh, PA 15238

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Method:

- a. Level the instrument.
- b. Bring sauce to $100^{\circ} \pm 1^{\circ}\text{F}$ in a water bath in a covered container.
- c. Stir sauce thoroughly before filling the Bostwick cavity.
- d. Scrape sauce evenly across upper edge of cavity.
- e. Release sauce and time sauce flow to the nearest 1 second and distance traveled to the nearest 0.1 cm.

If the Bostwick viscosity value of the sauce for any can in the sample fails to conform to the requirement specified in 3.5, it shall be classified as a major defect and the lot shall be rejected.

* 4.5.3.5 Salt content testing. Three filled and sealed tray pack cans shall be selected at random from the lot. The tray pack cans shall be individually tested for salt content in accordance with the Official Methods of Analysis of the Association of Official Analytical Chemists, except that preparation of the samples shall be as follows: The cans shall be opened and the entire contents of each can shall be separately blended in a Waring Blendor or equivalent. The test results shall be reported to the nearest 0.1 percent. Any result failing to conform to the salt requirement in 3.5 shall be classified as a major defect and shall be cause for rejection of the lot.

* 4.5.4 Can condition examination. Examination of filled and sealed tray pack cans shall be in accordance with the United States Standards for Condition of Food Containers, except that the inspection for labeling shall be as specified in 4.5.4.1. In addition, the following defect shall be classified as a major defect:

Evidence of buffing with an abrasive substance (see 5.1.1).

4.5.4.1 Can label examination. Labels shall be examined for defects in accordance with MIL-L-1497 (see 5.4) except, for self-adhering labels, the following additional defects shall apply:

Major: Label torn or scratched so as to obliterate any of the markings.

Minor: Air bubbles under label.

Label not properly adhered to can (for example, label raised or peeled back from edges or corners).

4.5.4.2 Label adhesive examination. When self-adhering labels are used, the adhesive shall be tested in accordance with ASTM D 3330.

4.5.5 Can closure examination. Can closure shall be examined visually and by teardowns in accordance with the can manufacturer's requirement and 21 CFR, Part 113, Subpart D. Any nonconformance based on observation of can seam teardowns or on record of can seam teardowns shall be classified as a major defect and shall be cause for rejection of any involved product.

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* 4.5.6 Vacuum examination. Cans shall be allowed to cool to $75^{\circ} \pm 5^{\circ}\text{F}$, held for at least 24 hours after sealing, and then examined for vacuum retention. To examine, lay a straight edge in the center of the lid along the length of the tray pack. Both ends of the straight edge shall touch the lid at the inside edge of the double seam. There shall be a visible gap between the straight edge and the lid for the entire distance of the label panel. Using a shorter straight edge, the same procedure shall be used across the width, in the center of the tray pack can. One measurement shall be made when examining a ribbed lid; lay the straight edge between the two center ribs along the length of the can. The inspection lot shall include only tray packs produced in a single shift on a single sealing machine. The sample size shall be 50 cans. Any nonconformance shall be classified as a major defect and shall be cause for rejection of the lot.

* 4.5.7 Test for rust spots on interior of tray pack cans. Where rust spots are suspected on interior of tray pack cans, the following test shall be performed:

- a. Immerse a cotton swab in acetone or methyl ethyl ketone solvent and gently rub suspected spot. Handling of the solvent shall be in strict accordance with the guidelines of the manufacturer's Material Safety Data Sheet (MSDS).
- b. If suspected spot immediately disappears, it is not a rust spot.
- c. If suspected spot remains, continue gently rubbing with the swab resoaked with solvent, and observe for disappearances or retention of spot. Replenish solvent as necessary.
- d. If spot persists, and only a very thin interior can coating, or no interior can coating remains, the spot shall be scored as a rust spot. This can be confirmed further by rubbing with a finger. The rust spot will be felt as a slight bump over the substrate.

4.5.8 Shipping container examination. Shipping containers shall be examined for defects in assembly, closure, and reinforcement (when applicable) in accordance with PPP-B-636. In addition, the following defects shall be classified as follows:

- Major: National stock number, item description, contract number, or date of pack markings missing, incorrect, or illegible.
 Reinforced with other than nonmetallic strapping or tape.
 Dimensions of pads not as specified.
 Interior packing with fiberboard liner or pads not as specified.
- Minor: Other required markings missing, incorrect, or illegible.
 Arrangement or number of cans not as specified.

4.5.9 Unit load inspection. Inspection of unit loads shall be in accordance with the quality assurance provisions of MIL-L-35078.

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* 5. PACKAGING

5.1 Preservation. The product shall be preserved in accordance with level A.

5.1.1 Level A. One hundred and twelve ounces of food product shall be filled into a tray pack can conforming to MIL-C-44340 and sealed and thermoprocessed as specified in 3.4 and 3.5. The practice of reconditioning tray pack cans by buffing with an abrasive substance shall not be permitted (see 4.5.4). The interior coating of filled and sealed thermoprocessed cans shall be free of rust spots, scratches, or fractures that penetrate through the coating when examined in accordance with 4.5.3.2.

5.2 Packing. The product shall be packed in accordance with level A, B, or C as specified (see 6.1).

5.2.1 Level A packing. Four cans of product, preserved as specified in 5.1, shall be packed in a snug-fitting fiberboard box, constructed and closed in accordance with style RSC-L or HSC-L with a HSC full depth cover, grade V2s of PPP-B-636. The cans shall be packed flat, four in depth within the box, with the first two cans placed with the lids together and the next two cans with the lids together. The inside of each box shall be provided with a box liner and five fiberboard pads fabricated of grade V3c fiberboard. The height of the box liner shall be equal to the full inside depth of the box (+0 inch, -1/8 inch). Flute direction of the box liner shall be vertical. The pads shall be placed between the cans and on the top and bottom of the stacked cans. The pad dimensions shall be not less than 1/8 inch of the full length and width dimensions of the box. Each box shall be reinforced with nonmetallic strapping or pressure-sensitive adhesive filament-reinforced tape in accordance with the appendix of PPP-B-636. Shipping containers shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified (see 6.1), except that the unit load shall consist of 48 boxes with 12 boxes per course and four courses per load with all courses having the same pattern. Boxes shall be stacked by interlocking and reversing each tier, or by columnar stacking with paperboard or fiberboard sheets placed between each tier. When unit loads are strapped, strapping shall be limited to nonmetallic strapping, except for type II, class F loads.

5.2.2 Level B packing. Four cans of product, preserved as specified in 5.1, shall be packed as specified in 5.2.1, except the box shall be constructed of grade V3c, V3s, or V4s fiberboard.

5.2.3 Level C packing. Four cans of product, preserved as specified in 5.1, shall be packed in a snug-fitting fiberboard box, constructed and closed in accordance with style RSC-L, class domestic, grade 275 of PPP-B-636. The cans shall be packed flat, four in depth within the box, with the first two cans placed with the lids together and next two cans also with the lids together. The inside of each box shall be provided with a box liner and five

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fiberboard pads. The height of the box liner shall be equal to the full inside depth of the box (+0 inch, -1/8 inch). Flute direction of the box liner shall be vertical. The pads shall be placed between the cans and on the top and bottom of the stacked cans. The pad dimensions shall be not less than 1/8 inch of the full length and width dimensions of the box and shall be fabricated of the same material as the box.

5.3 Unit loading. When specified (see 6.1), the product, packed as specified in 5.2.2 or 5.2.3, shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified, except that the unit load shall consist of 48 boxes with 12 boxes per course and four courses per load, with all courses having the same pattern. Boxes shall be stacked by interlocking and reversing each tier, or by columnar stacking with paperboard or fiberboard sheets placed between each tier. When unit loads are strapped, strapping shall be limited to nonmetallic strapping, except for type II, class F loads.

* 5.4 Labeling. Each tray pack can shall be labeled in accordance with MIL-L-1497 and the following:

- Official establishment number (for example, EST 38) or a three letter code identifying the establishment
- Lot number 1/
- Production shift number 1/
- Retort identification number 1/ 2/
- Retort cook number 1/ 2/

1/ 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, March 19, 1990 would be coded as 0078). The Julian code shall represent the day the product was packaged and processed. Sub-lotting (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.

2/ Required when a retort process is used.

In addition, the name of the product shall be marked, stamping is permitted, on one 1001 by 200 side of the can. The labeling shall be legible when examined as specified in 4.5.4 after preparation of product in accordance with heating instructions. Paper labels are not permitted. In addition, cans shall show the following statements on the lid:

Tray cans may be heated prior to serving or served at room temperature without heating. When heated, the following heating directions shall apply:

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TO HEAT IN WATER: Submerge unopened can in boiling water. Simmer gently 35 minutes. Avoid overheating (can shows evidence of bulging).

CAUTION: Use care when opening as pressure may have been generated within the can.

TO HEAT IN OVEN: Either punch several holes in lid of can or open can in usual manner leaving the loose lid in place. Place in a 350°F oven 30 - 40 minutes.

WARNING: Do not place unopened can in oven. This may cause the can to burst.

YIELD: Serves 18 portions of 3/4 cup each.

As an alternate labeling method, a preprinted, self-adhering, 0.002-inch thick, clear polyester label printed with indelible black ink may be used. Self-adhering labels shall be applied after retorting. Pressure-sensitive adhesive shall require no preparation prior to application. Labels shall tack quickly and adhere without curling or breaking. The adhesive shall have a minimum adhesion of 60 ounces per inch width when examined as specified in 4.5.4.2. When self-adhering labels are used, the tray pack cans shall be labeled with the Julian code and a product code prior to retorting.

5.5 Marking.

5.5.1 Shipping containers. In addition to any special marking required by the contract or purchase order, shipping containers shall be marked in accordance with MIL-STD-129.

5.5.2 Unit loads. Unit loads shall be marked in accordance with MIL-L-35078. In addition, the following precautionary marking in capital letters larger than other markings shall be included:

CAUTION: DO NOT STACK PALLETS IN TRANSIT OR MORE THAN TWO
HIGH IN STORAGE, UNLESS PALLET RACKS ARE USED.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Acquisition requirements. Acquisition documents must specify the following:

- a. Title, number, and date of this specification.
- b. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).

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- c. When a first article is required (see 3.1, 4.4, and 6.2).
- d. Provisions for approved preproduction samples (see 3.6.1 and 6.2).
- e. Level of packing required (see 5.2).
- f. Type and class of unit load when unit loading is required (see 5.2.1 and 5.3).

6.2 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of FAR 52.209. The first article should be a preproduction sample. The contracting officer should specify the appropriate type of first article and the number of units to be furnished. The contracting officer should also include specific instructions in acquisition instruments regarding arrangements for selection, inspection, and approval of the first article.

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

6.4 Alternative viscosity testing method. The contracting officer may authorize an alternative contractor-recommended method of viscosity testing if the alternative method is approved by the U.S. Army Natick Research, Development, and Engineering Center.

* 6.5 Subject term (key word) listing.

Canned foods
 Combat field feeding
 Operational rations
 Shelf stable

6.6 Changes from previous issue. The margins of this specification are marked with asterisks to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

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Custodians:

Army - GL
Navy - SA
Air Force - 50

Preparing activity:

Army - GL
(Project 8940-0717)

Review activities:

Army - MD, QM
Navy - MC
DP - SS

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1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
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I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER

MIL-C-44269B

2. DOCUMENT DATE (YYMMDD)

1991 June 30

3. DOCUMENT TITLE

CHERRY DESSERT, TRAY PACK

4. NATURE OF CHANGE (*Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.*)

5. REASON FOR RECOMMENDATION
6. SUBMITTER
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b. ORGANIZATION
c. ADDRESS (*Include Zip Code*)

d. TELEPHONE (*Include Area Code*)

7. DATE SUBMITTED
(YYMMDD)

 (1) Commercial
 (2) AUTOVON
 (*If applicable*)

8. PREPARING ACTIVITY
a. NAME

U.S. Army Natick RD&E Center

b. TELEPHONE (*Include Area Code*)

 (1) Commercial
 508-651-4501

 (2) AUTOVON/DSN
 256-4501

c. ADDRESS (*Include Zip Code*)
 Commander, U.S. Army Natick RD&E Center
 ATTN: STRNC-WTP
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