

METRIC

A-A-20331A**December 3, 2010****SUPERSEDING****A-A-20331****January 5, 2000****COMMERCIAL ITEM DESCRIPTION****FOOD PACKET, SURVIVAL**

The U.S. Department of Agriculture (USDA) has authorized the use of this Commercial Item Description (CID) as a replacement for CID A-A-20247A, Food Packet, Survival, Abandon Ship.

1. SCOPE. This CID covers special purpose food packets, designed for survival and for use in life rafts in aircraft or on abandon ships, packed in commercially acceptable, flexible containers, suitable for use by Federal, State, local governments, and other interested parties; and as a component of operational rations.

2. PURCHASER NOTES.**2.1 Purchasers *shall specify* the following:**

- Type(s) of survival food packets required (Sec. 3).
- When analytical requirements are different than specified (Sec. 6.1).
- When analytical requirements need to be verified (Sec. 6.2).
- Manufacturer's/distributor's certification (Sec. 9.3) or USDA certification (Sec. 9.4).
- When product sample is required (Sec. 9.5).

2.2 Purchasers *may specify* the following:

- Food Defense System Survey (Sec. 9.1 with 9.2.1) or (Sec. 9.1 with 9.2.2).
- Manufacturer's quality assurance (Sec. 9.2 with 9.2.1) or (Sec. 9.2 with 9.2.2).
- Packaging requirements other than commercial (Sec. 10).

3. CLASSIFICATION. The survival food packets shall conform to the following list which shall be specified in the solicitation, contract, or purchase order.

Types.

Type I - Consists of hard candy fruit tablets and chewing gum tablets

Type II - Consists of carbohydrate food bars

A-A-20331A**4. MANUFACTURER'S/DISTRIBUTOR'S NOTES. Manufacturer's/distributor's products *shall meet the requirements of the:***

- Salient characteristics (Sec. 5).
- Analytical requirements: *as specified by the purchaser* (Sec. 6).
- Manufacturer's/distributor's product assurance (Sec. 7).
- Regulatory requirements (Sec. 8).
- Quality assurance provisions: *as specified by the purchaser* (Sec. 9).
- Packaging requirements other than commercial: *as specified by the purchaser* (Sec.10).

5. SALIENT CHARACTERISTICS.

5.1 Processing. The survival food packets shall be prepared in accordance with good manufacturing practices (21 CFR Part 110).

5.2 Food Security. The survival food packets should be processed and transported in accordance to the Food and Drug Administration's (FDA's) *Guidance for Industry: Food Producers, Processors, and Transporters: Food Security Preventive Measures Guidance*. <http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/FoodDefenseandEmergencyResponse/ucm083075.htm>. This guidance identifies the kinds of preventive measures food manufacturers, processors, or handlers may take to minimize the risk that food under their control will be subject to tampering or other malicious, criminal, or terrorist actions. The implementation of enhanced food security preventive measures provides for the security of a plant's production processes and includes the storage and transportation of pre-production raw materials, other ingredients and postproduction finished product.

5.3 Ingredients.

5.3.1 Type I. The Type I survival food packet shall contain both hard candy fruit tablets and candy coated chewing gum tablets. The hard candy fruit tablets shall contain sugar, corn syrup, citric or malic acid, and natural and/or artificial flavors and may contain sodium lactate, turmeric coloring and cream of tartar. Natural or U.S. FD&C certified colors shall be used for coloring. The hard candy tablets shall consist of various fruit flavors. The chewing gum centers shall contain sucrose, dextrose, or corn syrup (singly or in combination), water-insoluble chewing gum base, softening and plasticizing ingredients, humectant, flavoring, and approved colorants (when applicable). The coating of the tablet may contain gum, gelatin, starch, or other protective materials and colorants.

5.3.2 Type II. The Type II survival food packet bars shall contain flour, shortening, sweeteners, and natural or artificial flavorings. The survival food packet bars may contain, but are not limited to, the following ingredients: thickening agents, water, salt, artificial colors, and preservatives.

A-A-20331A

5.3.3 Food Chemicals Codex purity. The ingredients used in the survival food packet which are listed in the Food Chemicals Codex shall comply with the purity standards of the Food Chemicals Codex.

5.4 Finished product. Unless otherwise specified in the solicitation, contract, or purchase order, the survival food packet shall consist of components that do not excessively provoke thirst while maintaining the following characteristics.

5.4.1 Type I. Type I survival packets shall contain 2 packages of hard candy fruit tablets, square or rectangular shaped, and 2 packages of chewing gum tablets, one package of peppermint and one package of spearmint, with each package containing 2 tablets. The Type I survival packets shall also contain an instruction sheet and if specified twine. Requirements regarding the twine and instruction sheet shall be specified in the solicitation/contract.

5.4.1.1 Hard candy fruit tablets. The hard candy fruit tablets shall be individually wrapped and overwrapped in units of ten to form a 28.35 g (1.0 oz) bar. The candy shall have a slightly sweet, fruity odor and a sweet, fruity flavor. The product shall not adhere to the wrappers.

5.4.1.2 Chewing gum tablets. The chewing gum tablets shall each weigh between 1.1 - 1.6 g (0.04 - 0.06 oz) and the dimensions shall range between 1.4 - 2.5 cm (0.55 - 0.98 in) in length, 0.89 - 1.6 cm (0.35 - 0.63 in) in width and 0.4 - 0.9 cm (0.16 - 0.35 in) in thickness. The candy coating for the chewing gum shall be applied by the hot- or cold-pan method. The coating shall cover the centers completely and shall be free from pits, cracks, and the appearance of discoloration. A suitable glaze or polish may be used to finish the pieces. The flavor of the gum shall be in an amount sufficient to impart a characteristic flavor and sensation. The chewing gum shall be fresh and shall not be sticky, grainy, flabby, or stringy.

5.4.2 Type II. Type II survival food packet shall have equally shaped individually wrapped portions that will conveniently provide survivors in life rafts with between 500 and 600 kilocalories per person per day. The Type II survival food packet shall not exceed 600 cm³ (36.6 in³) in volume and 567 g (20 oz) in weight. The food packet shall have a minimum of 2400 kilocalories (10,000 kJ) of which 45 percent of the kilocalories are from carbohydrates. The food bars shall have a light to darker golden brown color, a dense appearance, and flat surfaces. They shall have a sweet, toasted grain, oily/buttery/slight dairy flavor. Other flavor characteristics may be present if the bars are 'flavored'. The bars shall be firm and dense, slightly crunchy, slightly oily and easy to bite and chew. The food bars and packages shall have no off-odors or off-flavors.

5.5 Foreign material. All ingredients and finished product shall be clean, sound, wholesome, and free from evidence of rodent or insect infestation. There shall be no foreign material such as, but not limited to, dirt, insect parts, hair, wood, glass, metal, or plastic.

A-A-20331A

5.6 Age requirement. Unless otherwise specified in the solicitation, contract, or purchase order, the survival food packet shall be processed and packaged not more than 90 days prior to shipment and shall have a minimum shelf life of 5 years when stored at 26.7°C (80°F).

5.7 Palatability. When specified in the solicitation, contract, or purchase order, the finished product shall be equal to the approved product sample in palatability and overall appearance (see Sec. 9.5).

6. ANALYTICAL REQUIREMENTS.

6.1 Analytical requirements. Type I product requirement for chewing gum is for water-insoluble base. Type II product requirements are for protein, sodium, and moisture. Unless otherwise specified in the solicitation, contract, or purchase order the analytical requirements shall be as follows:

6.1.1 Water-insoluble base. The water-insoluble base shall be not less than 13.0 percent by weight.

6.1.2 Protein. Calories from protein shall not exceed 8.0 percent.

6.1.3 Sodium. The sodium (Na) content shall not exceed 50 mg per 100 g (3.5 oz) of product.

6.1.4 Moisture. The moisture content shall not exceed 7.0 percent.

6.2 Product verification. When USDA verification of analytical requirements is specified in the solicitation, contract, or purchase order, analytical testing shall be performed on a composite sample. For Type I product, five 2-tablet packages of chewing gum shall be selected from the lot for the composite sample. For Type II food bars, the composite sample shall be 454 g (16 oz) prepared from five randomly selected subsamples. Subsamples shall be a minimum of one packet/container and shall contain the appropriate number of packets/containers to yield a 454 g (16 oz) sample when composited.

6.3 Analytical testing. When specified in the solicitation, contract, or purchase order, analyses shall be in accordance with the following methods from the Official Methods of Analysis of the AOAC International or as specified below.

<u>Test</u>	<u>Method</u>
Protein	984.13 or 992.15
Sodium (Na)	985.35
Moisture	925.45 <u>1</u> /

A-A-20331A

1/ Conduct test at 70°C (158°F) for 16 hours using a vacuum oven as cited in Option A.

6.3.1 Water-insoluble base sample preparation. Weigh the individual samples (2 tablets). Chew each sample vigorously for 10 minutes. Spread the chewed gum as evenly and thinly as possible on a previously dried and tared glass or metal plate or disposable aluminum weighing dish approximately 2 inches square.

6.3.2 Examination for water-insoluble base. Dry the sample at 100°C in a vacuum oven at a pressure not more than 100 mm of mercury for at least 2 hours or in a gravity convection oven for at least 4 but not more than 5 hours. Cool in a desiccator, weigh, and calculate the percentage of water-insoluble base for each sample.

$$\frac{\text{Weight of water-insoluble gum base}}{\text{Original sample weight}} \times 100$$

6.4 Test results. The Type I test results for water-insoluble base shall be reported to the nearest 0.1 percent. The Type II test results for sodium shall be reported to the nearest 1.0 mg per 100 g. The Type II test results for protein and moisture shall be reported to the nearest 0.1 percent. Any result not conforming to the analytical requirements shall be cause for rejection of the lot.

7. MANUFACTURER'S/DISTRIBUTOR'S PRODUCT ASSURANCE. The manufacturer/distributor shall certify that the survival food packet provided shall meet the salient characteristics of this CID, conform to their own specifications, standards, and quality assurance practices, and be the same survival food packet offered for sale in the commercial market. The purchaser reserves the right to require proof of conformance.

8. REGULATORY REQUIREMENTS. The delivered survival food packet shall comply with all applicable Federal, State, and local mandatory requirements and regulations relating to the preparation, packaging, labeling, storage, distribution, and sale of survival food packets within the commercial marketplace. Delivered product shall comply with all applicable provisions of the Federal Food, Drug, and Cosmetic Act; the Fair Packaging and Labeling Act; and regulations promulgated thereunder. The delivered survival food packet shall comply with the allergen labeling requirements of the Federal Food, Drug, and Cosmetic Act.

9. QUALITY ASSURANCE PROVISIONS. *Purchaser shall specify 9.3 or 9.4; purchaser may specify 9.1, 9.1 with 9.2.1, 9.1 with 9.2.2, 9.2 with 9.2.1 or 9.2 with 9.2.2.*

9.1 Food Defense System Survey (FDSS). When required in the solicitation, contract, or purchase order, a FDSS shall be conducted by USDA, Agricultural Marketing Service (AMS) personnel. The FDSS verifies measures that operators of food establishments take to minimize the risk of tampering or other criminal actions against the food under their control. *(An AMS FDSS verifies the participating company adherence to the FDA's "Guidance for Industry - Food*

A-A-20331A

Producers, Processors, and Transporters: Food Security Preventive Measures Guidance.”) For further information, see section 12.1 and 12.3.2.

9.2 Manufacturer's quality assurance. When required in the solicitation, contract, or purchase order, the product manufacturer shall be required to provide evidence, by certificate, that the manufacturing plant has undertaken one of the following quality assurance measures within 12 months prior to providing a bid, or no later than 10 business days from the date of awarding of the contract. Failure to provide this documentation within the proper time frame may result in the contract being terminated for cause.

9.2.1 Plant systems audit. A plant systems audit (PSA) conducted by USDA, AMS, or other audit performed by a third party auditing service is required within 12 months prior to the date of the awarding of the contract. *(An AMS PSA verifies the manufacturer's capability to produce products in a clean sanitary environment in accordance with Title 21 Code of Federal Regulations, Part 110 - Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food, and verifies that the manufacturer has in place an internal quality assurance program.)*

9.2.2 Plant survey. A plant survey conducted by USDA, AMS, or other survey performed by a third party auditing service is required within 12 months prior to the date of the awarding of the contract. *(An AMS plant survey audit verifies that at the time of the survey, the manufacturer produces products in a clean sanitary environment in accordance with Title 21 Code of Federal Regulations, Part 110 - Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food.)*

9.3 Manufacturer's/distributor's certification. When required in the solicitation, contract, or purchase order, the manufacturer/distributor will certify that the survival food packet distributed meets or exceeds the requirements of this CID.

9.4 USDA certification. When required in the solicitation, contract, or purchase order that product quality, acceptability or both be determined, the Processed Products Branch (PPB), Fruit and Vegetable Programs (FV), AMS, USDA, shall be the certifying program. PPB inspectors shall certify the quality and acceptability of the survival food packet in accordance with PPB procedures which include: selecting random samples of the packaged survival food packet, evaluating the samples for conformance with the salient characteristics of this CID and other contractual requirements, and documenting the findings on official PPB score sheets and/or certificates. In addition, when required in the solicitation, contract, or purchase order, PPB inspectors will examine the survival food packet for conformance to the United States Standards for Condition of Food Containers in effect on the date of the solicitation.

9.5 Product sample. When specified in Department of Defense solicitations, contracts, or purchase orders, six units of Type I and Type II product that the contractor proposes to furnish,

A-A-20331A

packaged in accordance with the document requirements, shall be submitted to the contracting officer who will forward them to the U.S. Army Research, Development and Engineering Command; Natick Soldier Research, Development, and Engineering Center, (ATTN: RDNS-CFF); 15 Kansas Street, Natick, MA 01760-5018 for product sample evaluation. Six duplicate units of product shall be submitted to the contracting officer, and shall be used as approved reference samples for determining the acceptability of deliveries, as concerns palatability. Product samples must meet all document requirements prior to being submitted for evaluation of palatability and overall appearance. The approval of any product sample for palatability and overall appearance will not constitute approval of the sample as meeting the other requirements of this document.

10. PACKAGING. Preservation, packaging, packing, labeling, and case marking shall be commercial unless otherwise specified in the solicitation, contract, or purchase order.

11. USDA INSPECTION NOTES. When Section 9.4 is specified in the solicitation, contract, or purchase order, USDA certification shall include evaluation of the quality and condition of samples of packaged survival food packets, and compliance with requirements in the following areas:

- Salient Characteristics (Sec. 5).
- Analytical requirements *when specified in the solicitation, contract, or purchase order* (Sec. 6.2). When USDA analytical testing is specified, PPB inspection personnel shall select samples and submit them to the USDA, Science and Technology Program (S&TP) laboratory for analysis.
- Packaging requirements (Sec. 10 or as specified in the solicitation, contract, or purchase order).

12. REFERENCE NOTES.

12.1 USDA certification and FDSS contact. For USDA certification and/or FDSS survey, contact the **Branch Chief, PPB, FV, AMS, USDA, STOP 0247, 1400 Independence Avenue, SW, Washington, DC 20250-0247, telephone (202) 720-4693, Fax (202) 690-1527, or via E-mail: terry.bane@ams.usda.gov.**

12.2 Analytical testing and technical information. For USDA technical information on analytical testing, contact the **Branch Chief, Technical Service Branch, S&TP, AMS, USDA, STOP 0272, 1400 Independence Avenue, SW, Washington, DC 20250-0272, telephone (202) 690-0621, or via E-mail: shirleyj.wright@ams.usda.gov.**

12.3 Sources of documents.

A-A-20331A

12.3.1 Sources of information for nongovernmental document are as follows:

Copies of the Official Methods of Analysis of the AOAC International may be obtained from: **AOAC International, 481 North Fredrick Avenue, Suite 500, Gaithersburg, MD 20877, telephone (301) 924-7077. Internet address: www.aoac.org.**

Copies of the Food Chemicals Codex may be purchased from: **United States Pharmacopeial Convention, 12601 Twinbrook Parkway, Rockville, MD 20852-1790, telephone (800) 227-8772 or (301) 881-0666, Fax (301) 816-8148. Internet address: www.usp.org.**

12.3.2 Sources of information for governmental documents are as follows:

Applicable provisions of the Fair Packaging and Labeling Act are contained in 16 CFR, Parts 500 to 503, and the Federal Food, Drug, and Cosmetic Act are contained in 21 CFR Parts 1 to 199. These documents may be purchased from: **Superintendent of Documents, New Orders, P.O. Box 371954, Pittsburgh, PA 15250-7954. Credit card (Visa, MasterCard, Discover/NOVUS, and American Express) purchases may be made by calling the Superintendent of Documents on (866) 512-1800, (202) 512-1800 or on the Internet at: <http://www.gpoaccess.gov/nara/index.html>.**

Copies of Guidance for Industry - Food Producers, Processors, and Transporters: Food Security Preventive Measures Guidance is available online from: **FDA, Center for Food Safety and Applied Nutrition (CFSAN) on the Internet at: <http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/FoodDefenseandEmergencyResponse/ucm083075.htm>.**

Copies of this CID and the United States Standards for Condition of Food Containers are available from: **Branch Chief, PPB, FV, AMS, USDA, STOP 0247, 1400 Independence Avenue, SW, Washington, DC 20250-0247, telephone (202) 720-9939, Fax (202) 690-1527, via E-mail: FQASStaff@ams.usda.gov or on the Internet at: <http://www.ams.usda.gov/FQAS>.**

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: **Commander, Defense Logistics Agency (DLA) Troop Support, ATTN: FTSA, 700 Robbins Avenue, Philadelphia, PA 19111-5092, FAX (215) 737-2963, or via E-mail: dscpsubsweb@dla.mil.**

Military activities should submit requests for copies of this CID to: **Standardization Documents Order Desk, DLA Document Services, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094 or on the Internet at: <https://assist.daps.dla.mil> or <https://assist.daps.dla.mil/quicksearch/>.**

A-A-20331A

MILITARY INTERESTS: CIVIL AGENCY COORDINATING ACTIVITIES:**Custodians**

Army - GL
 Navy - SA
 Air Force - 35

USDA - FV
 USCG - CG
 HHS - FDA
 VA - OSS

PREPARING ACTIVITY:**Review Activities**

Army - MD, QM
 Navy - MC

DLA - SS

(Project No. 8970-2010-005)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.daps.dla.mil>.

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