METRIC

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SUPERSEDING
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COMMERCIAL ITEM DESCRIPTION

FOOD PACKETS, SURVIVAL

The U.S. Department of Agriculture (USDA) has authorized the use of this Commercial Item Description (CID).

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, other interested parties, and as a component of operational rations. The food packets are intended to provide survivors in life rafts adequate nutrition for 3 days. **Please note: This document does not guarantee purchase of this item by USDA.**[1]

2. PURCHASER NOTES.

2.1 Purchasers *must specify* the following:

- Type(s) of survival food packets required (Sec. 3).
- When analytical requirements are different than specified (Sec. 7.1).
- When compliance with analytical requirements must be verified (Sec. 7.2).
- Manufacturer's/distributor's certification (Sec. 10.3) or USDA certification (Sec. 10.4).
- When product sample is required (Sec. 10.5).

2.2 Purchasers *may specify* the following:

- Food Defense (Sec. 10.1) and Manufacturer's Quality Assurance (Sec. 10.2). Purchaser may specify one of the following combinations: Sec. 10.1.1 with 10.2.1 or 10.1.2 with 10.2.2.
- Packaging requirements other than commercial (Sec. 11).

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

[1] USDA purchase specifications are available at: https://www.ams.usda.gov/selling-food/product-specs.

Types.[2]

Type I - Consists of hard candy fruit tablets and chewing gum tablets
Type II - Consists of carbohydrate food bars

4. MANUFACTURER'S/DISTRIBUTOR'S NOTES. Manufacturer's/distributor's products must meet the requirements of the:

- Processing guidelines (Sec. 5).
- Salient characteristics (Sec. 6).
- Analytical requirements: *as specified by the purchaser* (Sec. 7).
- Manufacturer's/distributor's product assurance (Sec. 8).
- Regulatory requirements (Sec. 9).
- Quality assurance provisions: *as specified by the purchaser* (Sec. 10).
- Packaging requirements other than commercial: *as specified by the purchaser* (Sec.11).

5. PROCESSING GUIDELINES.

5.1 Processing. The survival food packets must be processed in accordance with *Current Good Manufacturing Practice* (CGMP) (21 Code of Federal Regulations (CFR) Part 110) or the *Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based Preventive Controls for Human Food* (21 CFR Part 117) in effect on the date of the solicitation, contract, or purchase order, and as applicable to the production facility.

5.2 Food defense. The survival food packets must be processed and transported in accordance with *Mitigation Strategies to Protect Food Against Intentional Adulteration* (21 CFR Part 121). This document 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 defense 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 post-production finished product.

5.3 Age requirement. Unless otherwise specified in the solicitation, contract, or purchase order, the survival food packets must be processed and packaged not more than 90 days prior to delivery to the purchaser.

5.4 Shelf life. Once the survival food packets are packaged, the survival food packets must have a remaining shelf life of at least 5 years when stored at 26.7°C (80°F).

[2] Not all options are available from every manufacturer. Check with the manufacturer/distributor for availability.

6. SALIENT CHARACTERISTICS.

6.1 Labeling. All ingredients must be declared by their common or usual name in descending order of predominance by weight (21 CFR §101.4(a)) unless exempted by 21 CFR §101.100. Components of the survival food packets must comply with 21 CFR §101.22.

6.2 Ingredients.

6.2.1 Type I. The Type I survival food packets must contain both hard candy fruit tablets and candy-coated chewing gum tablets.

6.2.1.1 Hard candy fruit tablets. The hard candy fruit tablets must contain sugar, corn syrup, citric or malic acid, and natural and/or artificial flavors and may contain sodium lactate, turmeric coloring, cream of tartar and U.S. Food and Drug Administration (FDA) approved color additives.[3] The hard candy tablets must consist of various fruit flavors.

6.2.1.2 Candy-coated chewing gum tablets. The chewing gum centers must contain sucrose, dextrose, or corn syrup (singly or in combination), water-insoluble chewing gum base, softening and plasticizing ingredients, humectant, flavoring, and FDA approved color additives[3] (when applicable). The coating of the tablet may contain gum, gelatin, starch, or other protective materials and colorants.

6.2.2 Type II. The Type II survival food packet bars must contain flour, vegetable oil or vegetable shortening, sweeteners, and natural or artificial flavorings. The survival food packet bars may contain, but are not limited to, thickening agents, water, salt, FDA approved color additives[3], and preservatives.

6.2.3 Additional processing ingredients. When used, all additional ingredients must meet the standards specified in the Food Chemicals Codex (FCC) or, in the absence of FCC specification at a minimum, meet the specifications for quality set by the U.S. Pharmacopeia (USP)-National Formulary quality. The additional ingredients must be approved food additives (21 CFR Part 170) or meet Generally Recognized as Safe (GRAS) requirements (21 CFR Parts 182 and 184) for those particular uses by FDA.

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

6.3.1 Type I. Type I survival food packets must contain 2 packages of hard candy fruit tablets, square or rectangular shaped, and 2 packages of chewing gum tablets, one package of

[3] https://www.fda.gov/industry/color-additive-inventories/summary-color-additives-use-united-states-foods-drugs-cosmetics-and-medical-devices

peppermint and one package of spearmint, with each package containing 2 tablets. The Type I survival food packets must also contain an instruction sheet and if specified, twine. Requirements regarding the twine and instruction sheet must be specified in the solicitation/contract.

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

6.3.1.2 Chewing gum tablets. The chewing gum tablets must each weigh between 1.1 - 1.6 g (0.04 - 0.06 oz) and the dimensions must range between 1.4 - 2.5 centimeters (cm) (0.55 - 0.98 inches (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 must be applied by the hot- or cold-pan method. The coating must cover the centers completely and must 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 must be in an amount enough to impart a characteristic flavor and sensation. The chewing gum must be fresh and must not be sticky, grainy, flabby, or stringy.

6.3.2 Type II. Type II survival food packet must have equally shaped individually wrapped portions that will conveniently provide survivors in life rafts with 800 kilocalories (kcal) per person per day. The Type II survival food packet must not exceed 600 cubic cm (cm^3) (36.6 cubic in) (in^3)) in volume and 567 g (20 oz) in weight. The food packet must have a minimum of 10,000 kilojoules (kJ) (2,390 kcal) of which 45 percent of the kcals are from carbohydrates. The food bars must have a light to darker golden-brown color, a dense appearance, and flat surfaces. They must have a sweet, toasted grain, oily/buttery/slight dairy flavor. Other flavor characteristics may be present if the bars are 'flavored'. The bars must be firm and dense, slightly crunchy, slightly oily, and easy to bite and chew. The food bars and packages must have no off-odors or off-flavors.

6.4 Foreign material. All ingredients and finished product must be clean, sound, wholesome, and free from foreign material, such as, but not limited to, extraneous plant material, dirt, plastic, insects, insect pieces, or rodent or insect infestation.

6.5 Palatability. When specified in the solicitation, contract, or purchase order, the finished product must be equal to the approved product sample in palatability and overall appearance (see Sec. 10.5).

7. ANALYTICAL REQUIREMENTS.

7.1 Analytical requirements. Unless otherwise specified in the solicitation, contract or purchase order, the following analytical and physical requirements for the survival food packets must conform to those in Tables I and II:

TABLE I. Physical requirement for Type I chewing gum tablets

Test	Requirement
Water-insoluble base	Not less than 13.0 percent by weight

TABLE II. Analytical requirements for Type II carbohydrate food bars

Test	Requirement
Protein	Calories from protein must not exceed 8.0 percent
Sodium (Na)	Not more than 50 milligrams (mg) per 100 g (3.5 oz)
Moisture	Not more than 7.0 percent

7.2 Analytical verification. Purchaser must specify manufacturer's/distributor's certification (Sec. 10.3) or USDA certification (Sec. 10.4).

7.3 USDA verification procedures. When USDA certification (Sec. 10.4) is specified in the solicitation, contract, or purchase order, analytical testing must be performed as follows.

7.3.1 Product verification sampling. When USDA verification of analytical requirements is specified in the solicitation, contract, or purchase order, analytical testing must be performed on subsamples of packages randomly selected from the lot. The number of subsamples must be based on USDA inspection service sampling procedures and plans (7 CFR §52.38). The contents of each will be used to create a composite sample that will be used in the analytical testing.

7.3.2 Analytical testing and reporting. When specified in the solicitation, contract, or purchase order, the analyses must be made in accordance with the following methods from the AOAC International Official Methods of Analysis (OMA) or as specified in 7.3.2.2. Any result not conforming to the analytical requirements may be cause for rejection of the lot.

TABLE III. Analytical testing and reporting

Test	Method	Reported as
Protein	984.13 or 992.15	Nearest 0.1 percent
Sodium (Na)	985.35, 2011.14, or 2011.19	Nearest 1.0 mg per 100 g
Moisture	925.45[4]	Nearest 0.1 percent

7.3.2.1. 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 square inches (in^2).

7.3.2.2. Examination for water-insoluble base. Dry the sample at 100ºC in a vacuum oven at a pressure not more than 100 millimeters of mercury (mmHg) 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.

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

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

9. REGULATORY REQUIREMENTS. The delivered survival food packets must comply with all applicable Federal, State, and local mandatory requirements and regulations relating to the preparation, packaging, labeling, storage, distribution, and sale of the survival food packets in the commercial marketplace. Delivered survival food packets must comply with all applicable provisions of the Federal Food, Drug, and Cosmetic (FD&C) Act, the Fair Packaging and Labeling Act, and regulations promulgated thereunder. When a known allergen is included in the survival food packets, the survival food packets must comply with the allergen labeling requirements of the FD&C Act. Major allergens identified in the FD&C Act include: wheat, fish, milk, soy, tree nuts, eggs, peanuts, and Crustacean shellfish or those in effect on the date of the solicitation, contract, or purchase order.

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

10. QUALITY ASSURANCE PROVISIONS. *Purchaser must specify 10.3 or 10.4. Purchaser may specify one of the following combinations: 10.1.1 with 10.2.1, or 10.1.2 with 10.2.2.*

10.1 Food defense. When required in the solicitation, contract, or purchase order, a Food Defense Systems Survey (FDSS) must be conducted by USDA, Agricultural Marketing Service (AMS), Specialty Crops Program (SCP), Specialty Crops Inspection (SCI) Division. Food defense requirements include a documented and operational food defense plan that provides for the security of a plant's production processes and includes the storage and transportation of pre-production raw materials and other ingredients and post-production finished product. The plan must address the following areas: (1) food security plan management; (2) outside and inside security of the production and storage facilities; (3) slaughter, when applicable, and processing, including all raw material sources; (4) shipping and receiving; (5) storage; (6) water and ice supply; (7) mail handling; (8) personnel security; and (9) transportation, shipping, and receiving.

10.1.1 FDSS. When required in the solicitation, contract, or purchase order, a FDSS must be conducted by USDA, AMS, SCP, SCI Division. The FDSS verifies that operators of food establishments have implemented measures to minimize the risk of tampering or other criminal actions against the food under their control. An AMS FDSS verifies the participating company's adherence to *Mitigation Strategies to Protect Food Against Intentional Adulteration* (21 CFR Part 121).

10.1.2 Food defense section of the Plant Systems Audit (PSA). When required in the solicitation, contract, or purchase order, a food defense audit will be conducted as part of the PSA. The audit will be conducted by USDA, AMS, SCP, SCI Division auditors. This verifies that operators of food establishments have implemented measures to minimize the risk of tampering or other criminal actions against the food under their control. The food defense section of the PSA verifies the participating company's adherence to *Mitigation Strategies to Protect Food Against Intentional Adulteration* (21 CFR Part 121).

10.2 Manufacturer's quality assurance. When required in the solicitation, contract, or purchase order, the product manufacturer will 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 the awarding of the contract. Failure to provide this documentation within the proper time frame may result in the contract being terminated for cause.

10.2.1 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. The plant survey audit verifies that, at the time of the survey, the manufacturer produces products in a clean, sanitary environment in accordance with CGMP (21 CFR Part 110) or the *Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based Preventive*

Controls for Human Food (21 CFR Part 117) in effect on the date of the solicitation, contract, or purchase order, and as applicable to the production facility.

10.2.2 PSA. A 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. The PSA verifies the manufacturer's capability to produce products in a clean, sanitary environment in accordance with CGMP (21 CFR Part 110) or the *Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based Preventive Controls for Human Food* (21 CFR Part 117) in effect on the date of the solicitation, contract, or purchase order as applicable to the production facility, and verifies that the manufacturer has in place an internal quality assurance program.

10.3 Manufacturer's/distributor's certification. When required in the solicitation, contract, or purchase order, the manufacturer/distributor must certify that the survival food packets delivered meet or exceed the requirements of this CID. The manufacturer/distributor must certify via a Certificate of Conformance or other adequate documentation (*as specified by the purchaser*) that the survival food packets meet the analytical requirements specified in Sec. 7 of this CID.

10.4 USDA certification. When required in the solicitation, contract, or purchase order that product quality and acceptability or both be determined, the USDA, AMS, SCP, SCI Division inspectors, must be the certifying program. SCI Division inspectors must certify the quality and acceptability of the survival food packets in accordance with SCI Division procedures, which include selecting random samples of the survival food packet, evaluating the samples for conformance with the salient characteristics and analytical requirements of this CID and other contractual requirements, and documenting the findings on official SCI Division score sheets and/or certificates. In addition, when required in the solicitation, contract, or purchase order, SCI Division inspectors will examine the survival food packets for conformance to the U.S. Standards for Condition of Food Containers (7 CFR Part 42) in effect on the date of the solicitation.

10.5 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, packaged in accordance with the document requirements, must be submitted to the contracting officer who will forward them to the Department of the Army, FCDD-SCC-EMR, Combat Capabilities Command - Soldier Center, 10 General Greene Avenue, Natick, MA 01760-5056 for product sample evaluation. Six duplicate units of product must be submitted to the contracting officer and must 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.

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

12. USDA INSPECTION NOTES. When Sec. 10.4 is specified in the solicitation, contract, or purchase order, USDA certification must include evaluation of the quality and condition of samples of survival food packets and compliance with requirements in the following areas:

- Processing guidelines (Sec. 5).
- Salient characteristics (Sec. 6).
- Analytical requirements *when specified in the solicitation, contract, or purchase order* (Sec. 7). When USDA analytical testing is specified, SCI Division inspection personnel must select samples and submit them to the USDA, AMS, Science and Technology Program (S&TP) laboratory for analysis.
- Packaging requirements (Sec. 11 or *as specified in the solicitation, contract, or purchase order*).

13. REFERENCE NOTES.

13.1 USDA services.

13.1.1 USDA certification. For USDA certification contact: **Inspection Operations, SCI Division, SCP, AMS, USDA, Room 1536 South Building, STOP 0240, 1400 Independence Avenue, SW, Washington, DC 20250-0240, telephone (800) 811-2373, fax (202) 720-0393, or via E-mail: SCIinspectionoperations@usda.gov.**

13.1.2 USDA FDSS, plant survey, and PSA. For a USDA FDSS, plant survey, and PSA contact the **Chief, Auditing Services Branch, SCI Division, SCP, AMS, USDA, Room 0711 South Building, STOP 0247, 1400 Independence Avenue, SW, Washington, DC 20250-0247, telephone (202) 720-5021, fax (866) 230-9168, or via E-mail: SCAudits@usda.gov.**

13.1.3 Analytical testing and technical information. For USDA technical information on analytical testing, contact the **Laboratory Approval and Testing Division, S&TP, AMS, USDA, STOP 0272, 1400 Independence Avenue, SW, Washington, DC 20250-0272, telephone (202) 690-4089 or via E-mail: KerryR.Smith@usda.gov.**

13.2 Sources of documents.

13.2.1 Sources of information for nongovernmental documents are as follows:

Copies of the AOAC International OMA may be obtained from: **AOAC International, 2275 Research Boulevard, Suite 300, Rockville, MD 20850-3250, telephone (301) 924-7077.**

Internet address: **http://www.aoac.org** for nonmembers and **http://www.eoma.aoac.org** for members and AOAC OMA subscribers.

Copies of the Food Chemicals Codex and U.S. Pharmacopeia may be purchased from: **United States Pharmacopeia Convention, 12601 Twinbrook Parkway, Rockville, MD 20877, telephone (800) 227-8772 or (301) 881-0666, Fax (301) 816-8148 or on the Internet at: http://www.usp.org.**

13.2.2 Sources of information for governmental documents are as follows:

Applicable provisions of the U.S. Standards for Condition of Food Containers are contained in 7 CFR Part 42, the National Organic Program are contained in 7 CFR Part 205, 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 979050, St. Louis, MO 63197-9000. 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. These documents may also be obtained free of charge on the Internet at: http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR.**

Copies of this CID and the U. S. Standards for Condition of Food Containers (7 CFR Part 42) are available from: **Director, SCI Division, SCP, AMS, USDA, Room 1536 South Building, STOP 0240, 1400 Independence Avenue, SW, Washington, D.C. 20250-0240, via E-mail: CIDS@usda.gov or on the Internet at: http://www.ams.usda.gov/grades-standards/cids and https://www.gpo.gov/fdsys/pkg/CFR-2015-title7-vol2/pdf/CFR-2015-title7-vol2-part42.pdf.**

Copies of this CID are also available online at: **ASSIST Online (https://assist.dla.mil) or ASSIST Quick Search (https://quicksearch.dla.mil).**

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

MILITARY INTERESTS:

Custodians

Army - GL
Navy - SA
Air Force - 35
DLA - SS

Review Activities

Army - MD, QM
Navy - MC, AS

CIVIL AGENCY COORDINATING ACTIVITY:

DOJ - BOP
HHS - FDA
USDA - SCP
VA - OSS

PREPARING ACTIVITY:

DLA - SS
(Project No. 8970-2019-001)

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.dla.mil.