INCH-POUND
MIL-R-44398B
20 September 1993
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SUPERSEDING
MIL-R-44398A

MILITARY SPECIFICATION

RATION SUPPLEMENT, FLAMELESS HEATER, FOR MEAL, READY-TO-EAT

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

1. SCOPE

1.1 Scope. This specification covers a water activated exothermic-chemical heater packaged in a plastic heating bag which functions as a container for heating the Meal, Ready-to-Eat, Individual.

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 6.2).

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 8970

STANDARDS

FEDERAL

FED-STD-313 - Material Safety Data Sheets Preparation and the Submission of
FED-STD-595 - Colors Used in Government Procurements

MILITARY

MIL-STD-105 – Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129 - Marking for Shipment and Storage
MIL-STD-147 - Palletization Requirements
MIL-STD-731 - Quality of Wood for Containers and Pallets

(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.

DRAWINGS

U.S. ARMY NATICK RESEARCH, DEVELOPMENT, AND ENGINEERING CENTER

6-1-8920 - Bag, Ration Heater
13-1-0184 - Figure 1, "DO NOT EAT" Pictograph

(Copies of drawings are available from the U.S. Army Natick Research, Development, and Engineering Center, ATTN: SATNC-EMSS, Natick, MA 01760-5014.)

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS), U.S. FOOD AND DRUG ADMINISTRATION (FDA)

Federal Food, Drug, and Cosmetic Act and Regulations Promulgated Thereunder (21 CFR Parts 170-189)

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

Research and Special Programs Administration (49 CFR Parts 171-180)

(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 6.2).

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 5276 - Standard Test method for Drop Test of Loaded Containers by Free Fall
ASTM D 999 - Vibration Testing of Shipping Containers
ASTM D 4727 - Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes
ASTM E 162 - Flame Spread Index
ASTM E 662 - Specific Optic Density
ASTM D 1974 - Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Boxes
ASTM D 5118 - Standard Practice for Fabrication of Fiberboard Shipping Boxes

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

NATIONAL MOTOR TRAFFIC ASSOCIATION, INC., AGENT

National Motor Freight Classification

(Application for copies should be addressed to the American Trucking Association, Inc., Traffic Department, 2200 Mill Road, Alexandria, VA 22314.)

UNIFORM CLASSIFICATION COMMITTEE, AGENT

Uniform Freight Classification

(Application for copies should be addressed to the Uniform Classification Committee, 22 South Riverside Plaza, Suite 1120, Chicago, IL 60606.)

(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.)

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 6.2), a sample shall be subjected to first article inspection (see 6.3) in accordance with 4.3 and 4.3.1.

3.2 Materials and components. The materials and components shall be as specified herein and on the applicable drawings. Where materials are not definitely specified, they shall be of the quality normally used for the purpose in commercial practice provided the end items comply with all requirements of this document and do not degrade the operational suitability or effectiveness of the heater. It is encouraged that recycled material be used when practical as long as it meets the requirements of this document.

3.2.1 Supercorroding alloy. The supercorroding alloy shall be Mg-5atomic%Fe produced from magnesium metal powder and food grade electrolytic iron powder by solid state blending in a vibratory ball mill. The alloy

shall be of such purity and uniformity that the performance of the finished ration heater will meet all requirements of this document.

3.2.2 Alloy additives. Fillers, binders, and additives, including electrolytes, wetting agents, and flow agents used in the heater construction shall be of such purity and uniformity that the performance of the finished ration heater will meet all requirements of this document.

3.2.3 Protective cover. The heater element shall be sealed within a protective cover constructed of a gas and water permeable material. The color of the cover shall be a clear or opaque plastic color, a natural tan color, like an unbleached kraft paper or shall be colored a light green approximately the color of the instruction label as specified in 3.6 or green in the range of 34127 through 34159 (excluding 34138) or 34226 through 34258 or 34583 of FED-STD-595. Alternatively, the protective cover may be a white color if provided in a heater bag that is printed or colored overall on both sides of the bag with a color as specified in 3.6 to neutralize or mask the visual reflectivity of the white material.

3.2.3.1 Printing of pictograph. Each protective cover shall be printed with the "DO NOT EAT" pictograph in accordance with figure 1. The pictograph shall be printed in three colors; a black figure on a white background with a red circle and a bar. The outside diameter of the pictograph circle shall be 7/8 inch (± 1/8 inch). The pictograph shall be printed on the exterior of one side f the protective cover.

3.2.4 Plastic bag. The plastic bag shall be a clear, natural, high density polyethylene bag that will function as protective packaging for the heater and serve as a container to hold both the heater and the MRE entree pouch while the heating process takes place. The bag shall conform to the requirements shown on Drawing 6-1-8920. Alternatively, when the heater element is provided in a white, polyester, protective cover, the polyethylene heater bag shall be printed or colored overall on both sides with a color as specified in 3.2.3 to neutralize or mask the visual reflectivity of the white, polyester material.

3.3 Design of heater pad. The heater element shall consist of a supercorroding Mg-Fe alloy powder and an electrolyte tougher with flow and wetting agents. The magnesium and iron function as anode and cathode, respectively. The electrolyte is activated by the addition of water which initiates a rapid corrosion of the magnesium particles within the matrix. The products of the chemical reaction are heat, magnesium hydroxide, and gaseous hydrogen.

3.4 Heater construction.

3.4.1 Heater. The heater element materials shall be uniformly blended and fixed in a matrix that will assure conformity to the performance requirements. ~~Heater~~ When the sintering process is used to form heater pads, the sintered he[illegible]xceed maximum dimensions of 4-3/4 inches in length by 3[illegible]y 3/16 inch in thickness when examined as specified in 4[illegible]rials excluding cover and bag shall not exceed 24 gram[illegible]cified in 4.4.1.2.

3.4.2 Heate[illegible]covering. Heater elements shall be contained in a[illegible]pecified in 3.2.3. Covers shall be heat sealable or se[illegible]esive.

3.4.3 Insertion in bag. The heater paperboard with protective paperboard cover shall be sealed within the plastic bag specified in 3.2.4. The seals of the finished bag shall be of adequate strength and integrity to withstand the leakage test specified in 4.4.4 without leaking. If the method of opening the finished bag is to be different from that shown on Drawing 6-1-8920 the method shall be such that the bag can be easily torn open across the width of the bag perpendicular to the side weld of the bag when tested as specified in 4.5.5.

3.5 Performance requirements.

3.5.1 Heating performance. The heater shall be capable of providing a 100^0F minimum temperature rise in water filled MRE pouch in 12 minutes or less when tested as specified in 4.4.4.

3.5.2 Heater by-products. The finished heater shall operate without emission of any unusual objectionable odors such as burning plastic/metal or sulfurous odors, as specified in 4.5.4.1. After the MRE pouch is removed, but still wet, there shall be no evidence of the white granular magnesium hydroxide precipitate, except at the location of the holes in the cover. The amount of residual water shall be not greater than 10 milliliters.

3.6 Label. One side of the plastic heating bag shall be legibly printed using a flexo-graphic printing process (or equal) with black characters on a light green or tan background. The light green background shall approximate color number 34583 of FED-STD-595. The tan background shall be in the range of 20309 through 30450 of FED-STD-595. The label shall be as shown on Drawing 6-1-8920. The label shall be clearly legible after testing as specified in 4.4.4.

3.6.1 Alternate label design. Alternate label designs shall be furnished to the contracting officer for determination of suitability.

3.7 Material certification. The material used in the heater and in the heater bag itself shall be safe in the event of incidental contact with the food being heated. The contractor shall certify that the materials used are safe in or on food by reference to, and in accordance with 21 CFR, Parts 170-189, applicable material safety datasheets, or other recognized health standards and regulations.

3.8 Material safety data sheets. A material safety data sheet (MSDA) shall be prepared in accordance with the requirements of FED-STD-313 (see 6.5). The MSDS shall be securely attached to the palletized unit loads of level B and C packing as specified in 5.3.

3.9 Health hazard assessment. If requested, the contractor shall furnish the formulation of the heater to the U.S. Army Environmental Hygiene Agency, ATTN: HSHB-MO, Aberdeen Proving Ground, MD 21010-5422. The formulation shall detail the exact percentages of the chemicals and compounds used in the heater, as well as the chemical composition of trade name ingredients.

3.10 Workmanship. The end item shall conform to the quality of product established by this document and the occurrence of defects shall not exceed the applicable acceptable quality levels.

4. QUALITY ASSURANCE PROVISIONS

4.1 Contractor's responsibility. Inspection and acceptance by the Defense Contract management Command (DCMC), 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 DCMD for any inspection.

4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.1.2 Responsibility for dimensional requirements. Unless otherwise specified in the contract or purchase order, the contractor is responsible for ensuring that all specified dimensions have been met. When dimensions cannot be examined on the end item, inspection shall be made at any point, or at all points in the manufacturing process necessary to ensure compliance with all dimensional requirements.

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

a. First article inspection (see 4.3 and 4.3.1).
b. Quality conformance inspection (see 4.4).

4.3 First article inspection. When a first article is required (see 3.1 and 6.2), one fully packed case of end items (level B or C as specified in the contract) shall be tested for rough handling in accordance with 4.3.1, and the first article shall be examined for the defects specified in 4.4.2 and 4.4.3 and tested for the characteristics specified in 4.4.4.

4.3.1 Rough handling. Individual shipping containers shall be vibrated in accordance with ASTM D 999, method A. Sample containers shall be vibrated for one hour at 268 cycles per minute. Subsequent to vibration testing, containers shall be dropped in accordance with ASTM D 5276, Objective B and Annexes. Constant height drop procedure and drop sequence described in A1.3 for a cycle of ten drops shall be followed. The drop height shall be 21 inches.

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

4.4.1 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.

4.4.1.1 Material certification. A certificate of compliance may be acceptable as evidence that the heater and bag materials conform to the requirements specified in 3.7. A certificate of compliance may be accepted

as evidence that the fiberboard shipping container conform to the fire retardant requirements specified in ASTM D 4727, sections 7.7.1 and 7.7.2, and are nontoxic and recyclable.

4.4.1.2 Heater element weight examination. Heater elements shall be weighed without protective cover and heater bag. The lot size shall be expressed in units of heaters. The sample unit shall be one heater. The inspection level shall be S-2. Each heater element shall be weighed to the nearest gram. Any sample unit failing to meet the weight limit specified in 3.4.1 shall be cause for rejection of the lot.

4.4.2 Heater examination. The heaters (in heater bag) shall be examined for the defects listed in table I. The lot size shall be expressed in heaters. The sample unit shall be one heater. The inspection level shall be I and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 1.5.

TABLE I. Heater visual defects

Category	Defect
Major	
101	Heater not formed as specified.
102	Heater bag not formed as specified.
103	Tear, hole, or open seal (visible channels).
104	Required marking missing, incorrect, or illegible.
105	Not material specified.
106	Not clean.
107	Tear notch (or tear method) missing.
108	Tear notch not located as specified.
109	Crumbled, crushed or broken heater pad or heater pad opened, unsealed, and otherwise spilling contents. 1/
110	Protective cover not securely sealed or not sealed properly.
112	Color of heater pad cover not as specified.
113	Color of heater pad label not as specified.
114	Required pictograph missing, incorrect, or illegible.

1/ A crumbled, crushed or broken heater pad is one in which the protective cover is open and spilling its contents (i.e., greater than 1/8 by weight of a sintered heater pad or the contents of one or more cells of the protective cover of the powder style heater) or the protective cover is misshapen as a result of having been crushed, bent or otherwise mishandled. The presence of loose metal fragments and/or powders that are randomly distributed throughout the interior of the heater bag as the apparent result of static electric

forces shall not be considered evidence of crumbled, crushed or broken heaters.

4.4.3 Heater dimensional examination. The heaters shall be examined for conformance to the dimensions specified on Drawing 6-1-8920 and 3.4.1. Any dimension not within the specified tolerance shall be classified as a defect. The lot size shall be expressed in heaters. The sample unit shall be one heater. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 4.0.

4.4.4 Heater testing. The heaters shall be tested for the characteristics listed in table II. The lot size shall be expressed in heaters. The sample unit shall be one heater. The inspection level and the AQL, expressed in terms of defects per hundred units, shall be as specified in table II.

TABLE II. Heater tests

Characteristic	Requirement paragraph	Test paragraph	Inspection level	Acceptable quality level
Leakage	3.4.3	4.5.2	S-2	1.0
Heating performance	3.5.1	4.5.3	S-3	1.0
Heater by-products	3.5.2	4.5.4	S-2	1.0
Label	3.6	4.5.4.4	S-2	1.0

4.4.5 Shipping container examination. The fully packaged heaters shall be examined for the defects listed below. The lot size shall be expressed in units of shipping containers. The sample unit shall be one shipping container fully packaged. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

Examine	Defect
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application.
Materials	Any component missing, damaged, or not as specified.
Workmanship	Inadequate application of components, such as: incomplete sealing or closure of flap, improper taping, loose strapping, or inadequate stapling. Bulged or distorted container.
Content	Number per container is more or less than required.

4.4.6 Unit load inspection. The fully packaged and palletized unit loads shall be examined for the defects listed below. The lot size shall be expressed in units of palletized unit loads. The sample unit shall be one palletized unit load, fully packaged. The inspection level shall be S-1 and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

Examine	Defect
Finished dimensions	Length, width, or height exceed specified maximum requirement.
Palletization	Pallet pattern not as specified. Load not bonded as specified.

Weight	Exceeds maximum load limits.
Marking	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application.

4.5 Methods of inspection.

4.5.1 Heater weight. Each heater shall be weighed as specified in 4.4.1.2.

4.5.2 Leakage test. The heater shall be removed from the plastic bag. Fill the bag 3/4 full with water and fold over the top of the bag. Gently apply light pressure to sides of bag while holding the top of the bag closed to contain water. Observation of any dripping or steady flow of water through the bag's surfaces or seams or failure to meet the requirements of 3.4.3 shall constitute failure of this test.

4.5.3 Heater performance test. The heater shall be placed in a plastic tray no less than 7.5 inches long, 4.75 inches wide, and 1.75 inches deep with not more than 0.03 inch-thick tray walls. An MRE pouch (see 6.4) shall be filled with not less than 8 ounces of water in the temperature range of 35^0F to 45^0F fitted internally with a temperature measuring device, and placed on top of the heater. One end of the pouch shall be lifted and a quantity of water equal to or less than the amount used in 4.5.4 and not warmer than 72^0F shall be poured on top of the heater. A lid shall then be placed on the tray and the time and temperature rise recorded for at least 15 minutes. The temperature rise as a function of time shall be recorded at each minute interval, by means of an electronic digital recording device which produces a legible copy of the data as it is obtained throughout the performance test. Failure to meet the requirements of 3.5.1 shall constitute failure of this test.

4.5.4 Heater by-products. Following the instructions provided on the label of the bag, an 8 ounce MRE pouch (see 6.4) shall be inserted in the bag and the bag filled with water to the top indicator line to activate the heater. The MRE pouch shall be placed on a 15^0 incline during the heating process. After 12 minutes the heater bag shall be op0ened and the contents of the bag and the label shall be inspected as specified below.

4.5.4.1 Foreign odor. While the heating process takes place and after the bag has been opened, the emission of any unusual objectionable odors such as burning plastic/metal or sulfurous odors shall constitute a test failure.

4.5.4.2 Residue. While the MRE pouch is still wet, it shall be inspected for white granular residue (magnesium hydroxide). Failure to meet the requirement in 3.5.2 shall constitute failure of this test.

4.5.4.3 Residual water. After the MRE pouch has been removed, the residual water shall be poured out of the bag and measured. Failure to meet the requirement in 3.5.2 shall constitute failure of this test.

4.5.4.4 Label and markings. The heater bag label and markings shall be inspected for legibility, tackiness, and separation from the bag. Failure to meet the requirement in 3.6 shall constitute failure of this test.

4.5.5 Bag tear test. If the method to be used for tearing open the bag is to be different from the tear notch method shown on Drawing 6-1-8920, the acceptability of the method shall be determined by grasping the bag between the thumb and forefinger of each hand on either side of the arrow indicated on Drawing 6-1-8920 and pulling the bag apart in one pull. Failure to meet the requirement in 3.4.3 shall constitute failure of this test.

5. PACKAGING

5.1 Preservation. Preservation shall be level A.

5.1.1 Level A. Twelve heaters shall be arranged in a single stack, with heater positioned at the same end of the stack and the ends of the bags opposite the heater pads folded together underneath the stack. The stack of 12 heaters shall be unit packed in a close-fitting bag fabricated from 0.003 inch polyethylene. Excess air shall be manually expelled from the bag just prior to closing to maintain a close fit between the bag and contents. The bag shall be closed by heat sealing and shall be provided with tear notch located halfway along either short side of the bag. As an alternate to the polyethylene bag, the stack of 12 heaters may be inserted into a sleeve composed of a suitable heat shrinkable material and subsequently shrink wrapped.

5.2 Packing. Packing shall be level B or C as specified (see 6.2).

5.2.1 Level B packing. Two hundred and eighty-eight heaters, preserved as specified in 5.1, shall be packed in a snug-fitting, corrugated fiberboard shipping container conforming to style RSC-L, grade V3c of astm d 5118. The fiberboard shipping container (excluding the liner and pads) shall also be constructed of fire retardant fiberboard in accordance with type CF, class WR/FR variety SW, grade V3c of ASTM D 4727. The fire retardant fiberboard must pass the tests for flame spread index (ASTM E 162) and specific tests for optical density (ASTM E 662) as specified in ASTM D 4727. All flame retardant coatings/additives must be nontoxic and nonhazardous and must be capable of being repulped and recycled. Twenty-four unit packs shall be packaged on end and arranged eight in length, three in width, and one in depth, with the face of each pack against the box width panels. The box liner and top and bottom pads shall be fabricated with grade V3c fiberboard in accordance ASTM D 4727. When metal fasteners are used in the box manufacturer's joint, the fasteners shall be completely covered with pressure-sensitive tape. Each shipping container shall be closed in accordance with method 2A2 sealed in accordance with method V, and reinforced with nonmetallic strapping or pressure-sensitive adhesive filament-reinforced tape in accordance with ASTM D 1974. If fiberboard shipping containers are not specified to be palletized into unit loads, each shipping container shall be provided with a MSDS securely attached to one side in a clear plastic self-adhering sleeve or with tape.

5.2.2 Level C packing. Heaters shall be packed in a manner to ensure carrier acceptance and safe delivery at destination at the lowest transportation rate for such supplies. The shipping container must conform with all provisions of 49 CFR Parts 171-180 (Hazardous Materials Regulations) for Division 4.3, Packing Group I materials, unless the contractor can certify that the heater is other than such or the Department of Transportation authorizes an official exemption from these provisions. The shipping container shall be in accordance with the National Motor Freight Classification or the Uniform Freight Classification, as applicable, except

fiberboard containers shall be closed in accordance with method II, as specified in the appendix of PPP-B-636. When metal fasteners are used in the manufacture's joint or setup of the fiberboard box, the fasteners on the inside of the box shall be covered with tape or paperboard to protect contents from mechanical damage. If fiberboard shipping containers are not specified to be palletized in unit loads, each shipping container shall be provided with a MSDS securely attached to one side in a clear plastic, self-adhering sleeve or with tape.

5.3 Palletization. Shipping containers shall be arranged in unit loads on a 40 x 48 inch or 48 x 40 inch double-wing partial 4-way entry commercial wood pallet. A 40 x 48 inch commercial fiberboard pad shall be positioned on the pallet before loading. Each load shall be bonded with shrink or stretch film. When shrink of stretch film is used, it must be applied low enough on the pallet to bond the load to the pallet. When stretch wrap is used, the pallet load shall be weather protected by placing a short pallet bag or plastic shroud over the top of the load after the completion of the first (bottom to top) wrap. Unit load dimensions shall not exceed 43 inches in width, and 54 inches in height. Each palletized unit load shall be provided with a MSDS securely attached to adjacent sides inside a clear plastic sleeve with tape or by using a self-adhering clear photo sleeve. In addition to the MSDS, the shipping papers must accompany the shipment and a copy must be placed in the vehicle manifest.

5.4 Marking. In addition to any special marking required by the contract or purchase order, unit packs, shipping containers, and palletized unit loads shall be marked in accordance with MIL-STD-129. Unit packs shall be clearly marked with lot number, and date of pack. The top of the shipping container shall be clearly marked as follows:

OPEN CAREFULLY IF USING KNIFE TO AVOID SLITTING CONTENTS

For level C packed heaters, shipping containers and palletized unit loads shall be marked in accordance with 49 CFR Parts 171-180, for Division 4.3, Packing Group I materials, unless officially exempted by the Department of Transportation.

6. NOTES

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

6.1 Intended use. The heater covered by this specification is intended for use in heating the Meal, Ready-to-Eat.

6.2 Acquisition requirements. Acquisition documents must specify the following:

a. Title, number, and date of this specification.
b. Issue of the DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
c. When a first article is required (see 3.1, 4.3. 4.3.3, and 6.3).
d. Level of packing (see 5.2).

6.3 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of Federal

Acquisition Regulation (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 documents regarding arrangements for selection, inspection, and approval of the first article.

6.4 Samples. For access to samples of MRE pouches, address the contracting activity issuing the invitation for bids or requests for proposal.

6.5 Material safety data sheets. Contracting officers will identify those activities requiring copies of completed Material Safety Data Sheets prepared in accordance with FED-STD-313. The pertinent Government mailing addresses for submission of data are listed in FED-STD-313.

6.6 Subject term (key word) listing.

Exothermic-chemical
Heating bag
Operational ration

6.7 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:

Army - GL
Navy - SA
Air Force - 50

Preparing activity:

Army - GL

(Project 8970-0171)

Review activities:

Army - MD, QM
Navy - MC
DLA - SS

AMSSB-RCF-FN (Valvano/4259) 1 May 2003

TO: DSCP-HRAC (LeCollier/3625)

Subject: ES03-116; Document Change; MIL-R-44398B Ration Supplement, Flameless Heater, For Meal Ready-to-Eat; Clarify dimensions for sintered heater pad only

1. The U.S. Army Soldier and Biological Chemical Command, Soldier Systems Center (SBCCOM) is providing clarification for sintered heater pad dimensions. The dimensions cited in 3.4.1 do not apply to a newer heater element version. We recommend that DSCP implement the change to the 3.4.1 for all current, pending and future procurements until the subject document is formally amended or revised.

Page 5; Para 3.4.1: in 2nd sentence, delete “Heater” and insert “When the sintering process is used to form heater pads, the sintered heater”

2. The attached document file includes the new change.

1 Attachment

DONALD A. HAMLIN
Team Leader
Food Engineering Services Team
Combat Feeding Directorate

R Valvano

CF: NSC:
Aylward
Friel
Hamlin
Hill
Richards
Sherman
Trottier
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CF: DSCP & SVCs:
Anthony Miller
Arthur Lowry
Beward Malason
Richardson H.
Ferrante Salerno
Galligan
Kavanagh