

GG-B-00146b
2 November 1965
SUPERSEDING
GG-B-146a
31 March 1953

INTERIM FEDERAL SPECIFICATION

BATH, WHIRLPOOL, CORROSION-RESISTING STEEL

This interim Federal specification was developed by the Defense Personnel Support Center, 2800 South 20th Street, Philadelphia, Pennsylvania 19101, based upon currently available technical information. It is recommended that Federal agencies use it in procurement and forward recommendations for changes to the preparing activity at the address shown above. The General Services Administration has authorized the use of this Interim Federal specification as a valid exception to Federal Specification GG-B-146a dated 31 March 1953.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers whirlpool baths used for hydrotherapy of the arm or leg.

1.2 Classification.

Size 1 Arm
Size 2 Leg

2. APPLICABLE SPECIFICATIONS, STANDARDS, DRAWINGS AND OTHER PUBLICATIONS

2.1 Specification, standards, and drawings. The following specifications and standards, of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

SPECIFICATIONS

Federal

UU-P-268	Paper, Kraftlift, Untreated, Wrapping.
UU-P-271	Paper, Wrapping, Waterproofed Kraft.
PPP-B-566	Boxes, Folding, Paperboard.
PPP-B-585	Boxes, Wood, Wirebound.

GG-B-00146b

PPP-B-601	Boxes, Wood, Cleated-Plywood
PPP-B-621	Boxes, Wood, Nailed and Lock-Corner.
PPP-B-636	Box, Fiberboard.
PPP-B-676	Box, Setup.

Military

MIL-L-10547	Liners, Case, and Sheet, Overwrap; Water-Vaporproof, or Waterproof, Flexible.
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STANDARDS

Federal

FED-STD-66	Steel, Chemical Composition and Hardenability.
FED-STD-151	Metals, Test Methods.

Military

MIL-STD-105	Sampling Procedures and Tables for Inspection by Attributes.
MIL-STD-129	Marking for Shipment and Storage.

2.2 Other Publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

National Board of Fire Underwriters

NBFU 70 Standard for Electric Wiring and Apparatus

Application for copies should be addressed to
National Board of Fire Underwriters
85 John Street, New York 38, N.Y.

Underwriter's Laboratories, Inc.

UL 73 Motor Operated Appliances

Application for copies should be addressed to
Underwriter's Laboratories, Inc.
207 East Ohio Street, Chicago Illinois 60611

3.1 Preproduction sample. When specified (see 6.1), prior to the start of production of the contract quantity, one preproduction sample of the whirlpool bath shall be assembled, completely finished, and tested by the contractor. The sample shall be submitted, together with the contractor's inspection and test reports, to the contracting officer for examination and testing to determine compliance with the requirements of that specification. Written approval of the materials, construction, and performance of the sample shall be obtained from the contracting officer, or his authorized representative, prior to the manufacture and assembly of the remaining quantity to be manufactured. Further production of the item by the contractor, prior to this approval, shall be at the contractor's risk. Accepted preproduction sample shall become the property of the procuring activity and shall be included in the quantity called for in the contract or order. In the event that the preproduction sample is not approved, the contractor shall submit a new sample for approval, or modify the existent sample so as to remove the deficiencies cited.

3.2 Fire and Casualty hazards.

3.2.1 The contractor shall submit proof to the contracting agency prior to delivery, that the motor he will supply under this specification conforms to the applicable requirements of Underwriters' Laboratories Inc. (Standard UL 73 and the National Board of Fire Underwriters' Standard NFBU 70.) Such proof shall consist of a laboratory report or listing by the Underwriters' Laboratories, Inc. The label or listing of the Underwriters' Laboratories shall be acceptable as evidence that the equipment conforms to the above. A copy of each laboratory report shall be furnished to the contracting officer.

3.2.2 In lieu of the label or listing by the Underwriters' Laboratories Inc., the contractor may submit a laboratory report by a nationally recognized testing agency adequately equipped and competent to perform such services, as shall be evidenced by the attachment of its seal, stamp or label to the article, or the issuance of a certificate. The contractor shall submit the laboratory report which shall include test results and methods used to determine compliance, to the contracting officer for approval. The Government reserves the right to require a facilities report showing the qualifications of the testing laboratory and to conduct a facilities survey to determine its acceptability. Independent proof shall consist of the following, when tested as specified in 4.4.6:

(a) Input test. - The current input to the motor shall not be more than 110 percent of the rated value when connected to a 115 volt, 60 cycle supply circuit and operated in the intended manner.

GG-B-00146b

(b) Normal temperature test. - The motor shall not show a temperature rise of more than 80 deg. C. on the coil windings when operated under the conditions of this test. Ambient temperature is assured to be 25 deg. C. but test may be run at any ambient temperature within the range of 10 deg. - 40 deg. C.

(c) Dielectric strength test. - The motor shall successfully withstand a 900 volt potential for one minute with no evidence of arc over or breakdown.

(d) Stalled rotor test. - The overload protector in the motor shall function periodically during this 15 day test to prevent a fire hazard. At the end of the test the motor shall still be in operating condition and the insulation deterioration shall not be excessive.

(e) Limited short circuit test. - There shall be no cotton ignition around the motor enclosure or any other indication of a hazard during this test.

3.2.3 Compliance with the above requirements regarding fire and casualty hazards, does not absolve the contractor from complete compliance with the requirements of this specification in order to secure the acceptance of his commodity.

3.3 Materials

3.3.1 Corrosion-resisting steel. Corrosion-resisting steel used in the construction of the bath shall conform to AISI 304 of Federal Standard No. 66, and shall pass the test for chemical composition specified in 4.4.1.

3.3.2 Pipes, valves, and fittings. Pipes, valves, and fittings shall be of brass or bronze coated with polished chromium plating over nickel.

3.4 Construction.

3.4.1 Component Parts. Shall consist of a tank, an electric turbine ejector, turbine elevator, thermostatic water-mixing valve assembly, dial thermometer, switch box, drain, and overflow valve.

3.4.1.1 Tanks. Tanks shall be constructed of corrosion-resisting steel not less than 0.050 inch thick (No. 18, United States Standard (U.S.S.) gage). The tank shall be oval in shape and the top edge shall be finished with a beaded rim, neatly rolled over a 3/8-inch-diameter corrosion-resisting steel rod. The tank shall be constructed with continuous welds. The crevice of the joints between the bottom and the side wall on the inside of the tank shall be filled with a small smooth fillet of 50-50 solder. The bottom shall be so constructed as to prevent buckling or sagging from the weight of the water, or by other means, and shall be securely mounted. The method of instructing and attaching the bottom shall be such that no free play can be obtained by the intermittent pressure of water or by other means. The bottom of the tank shall have a minimum pitch 1/4 inch sloping downward to the waste opening in order to insure complete drainage of the tank. The completed tank shall withstand the leak test specified in 4.4.2.

3.4.1.1.1 Size 1, arm bath. The inside measurements of the oval tank shall be 18 inches deep, 15 inches wide, and 28 inches long. A tolerance of +/- 1/4 inch shall apply. The side wall of tank shall have a 1-inch apron finished at its lower edge with a tight double hem. A pedestal attachment base with four mounting bolts shall be recessed into, and welded to, the tank apron. The pedestal base shall be not less than 8 inches in diameter and provided with four holes for floor mounting. The base shall accommodate a substantial tubular upright of sufficient height to allow tank mounting with the top rim 36 inches +/- 1/4 inch from the floor. Pedestal shall be made of brass or bronze, chromium over nickel plated, or of corrosion-resisting steel, satin finish.

3.4.1.1.2 Size 2, leg bath. The inside measurements of the oval tank shall be 28 inches deep, 20 inches wide, and 36 inches long. The over-all height of the tank shall be 33 inches, including a 5-inch apron extending from bottom of tank to the floor for supporting the tank. A tolerance of +/- 1/4 inch shall apply. The bottom rim of the apron shall have a tight double hem approximately 1 inch wide on the outside of tank. The bottom of the tank shall be so constructed as to prevent buckling or sagging from weight of water or patient. The bottom of the tank shall be creased or pitched to the drain to provide complete drainage.

3.4.1.2 Tank fitting. One end of the tank shall be equipped with a direct-connected waste and overflow having an outside dimension of 2 inches. The waste line for size 1 shall include a combination drain valve and overflow, trap with union fittings to wall, and escutcheon. The waste line for size 2 shall include a combination drain valve and overflow, necessary fittings to floor, and escutcheon. Each size shall have a 3/4-inch I.P.S. bell-nozzle inlet assembly at top of tank, a minimum of 1 inch above the tank overflow, with pipe and fittings for connection to thermostatic water-mixing valve. The overflow shall be located at one end of the tank in such a manner that when the tank is filled to a point not less than 4 inches below the top rim, the overflow of water will take place.

GG-B-00146b

3.4.1.3 Thermostatic water-mixing valve. The tank shall be furnished with a water temperature control assembly consisting of one thermostatic water-mixing valve having a minimum delivery capacity of 10 gallons (for size 1) and 20 gallons (for size 2) of water per minute at not less than 40 pounds per square inch water pressure, and shall have a temperature range from cold water minimum to not less than 120 deg. F. maximum. The thermostatic water-mixing valve shall be equipped with a 1/2-inch (for size 1) or 3/4-inch (for size 2) I.P.S. loose-key inlet stops, checks, escutcheons, volume control valve, vacuum breaker, pipe fittings from wall to tank, and wall mounting bracket. The valve shall maintain the set water temperature within +/- 3 deg. F., and shall not allow water hotter than 120 deg. F. to flow. The valve shall be tested as specified in 4.4.3.

3.4.1.4 Dial thermometer. A quick-acting dial thermometer shall be mounted in the tank to permit easy and constant reading of the water temperature. Casing of dial thermometer shall be of chromium-plated brass, not less than 3-1/2 inches diameter. The temperature range of the dial thermometer shall be from 40 deg. to 140 deg. F. The capillary tube and bulb shall have a combined minimum length of 17 inches (for size 1) and 28 inches (for size 2) enclosed in a 5/8-inch-diameter brass tube. Tube shall be perforated to permit circulation of water around the bulb. Tube shall be clamped to inside of the tank at the head end. The thermometer shall have a accuracy of +/- 2 deg. F. when tested as specified in 4.4.4.

3.4.1.5 Electric turbine ejector and aerator. The tank shall be equipped with an electric turbine ejector and shall be operated by not less than a 1/3-horse-power, constant-speed, 115-volt, 60-cycle, 3450 r.p.m, single-phase, split-phase, vertically mounted motor requiring no condenser, and equipped with sealed-in, lifetime grease-packed ball bearings. The motor shall be of the type not requiring lubrication. The bottom-end bell shall be flat and machined to fit the motor suspension bracket in order to insure accurate alignment of the end housings of the motor as well as the turbine shaft bearing. The motor suspension bracket shall be constructed of polished aluminum or bronze. The motor shall be protected against overloads by a built-in manual-reset thermal cutout. The cutout shall meet the requirements for overload protection as described in UL 73. The motor shall be equipped with a 10-ampere double-pole single-throw "on and off" switch built into a terminal box mounted on body of motor and shall be furnished with not less than a 9-foot three-conductor No. 18 heavy-duty type SJ rubber, or equivalent synthetic-rubber, covered cord and plug. If desired, the switch may be mounted in an aluminum switch box which is mounted in a fixed stationary position on one end of the tank. The switch shall be keyed in with its mounting to prevent it from rotating. A sufficient length of three-conductor No. 18 heavy-duty type SJ rubber-covered cord to permit free adjustment of the turbine position shall be furnished together with an approved strain-relief fitting to connect cord to switch box. Strain reliefs shall meet the requirements of UL 73. Provision for grounding third wire of cord to bath and

bath to electrical system shall be made. The motor shall be completely covered by a chrome-plated steel or polished-aluminum shroud. A stainless-steel shaft of not less than 1/2-inch diameter, enclosed in a brass housing shall be directly connected to the motor extension shaft by a removable brass coupling and shall extend downward to revolve in a suitable molded-rubber impeller-wheel bearing mounted in the bottom housing. Bearings shall be water-lubricated shall be provided with suitable lubricating grooves, and shall be formed of Buna-N-rubber, oil-resisting cutless bearing, or equal. The shaft shall be connected to a bronze impeller wheel which shall be enclosed in a heavy bronze housing. The turbine ejector shall deliver at maximum pressure, not less than 45 gallons of water per minute at a velocity of not less than 2500 linear feet per minute, which shall be controlled to produce an underwater stream of varying degrees of intensity from zero to maximum, and the stream shall be fan-shaped with a spread of not less than 8 inches at a distance of 12 inches from the ejection nozzle at maximum velocity. An aerator embodied in the turbine ejector shall deliver not less than 19,000 cubic inches per minute of heated forced air derived from thermal losses of motor, to help maintain temperature of the water. The bearing tube and elbow shall be made of brass or bronze. The turbine ejector and aerator shall be tested as specified in 4.4.5.

3.4.1.5.1 Screening or protective device. Aluminum screening, perforated aluminum plate, or another protective device shall be part of the turbine ejector and shall be mounted in or behind the pump inlet opening to eliminate a hazard to patient's and operator's toes and fingers. The protective device, if other than aluminum, shall be made of corrosion-resisting metal. The screening or other device used shall not impede performance of the turbine ejector as specified herein.

3.4.1.6 Turbine-ejector elevator. The turbine raising and lowering device shall consist of a corrosion-resisting steel shaft, sheathed by a brass tube attached to the tank by means of two brass or bronze brackets which shall form the guide for raising and lowering the turbine ejector. The upper bracket shall have an integral hand clamp to permit locking of the shaft and to make adjustments for position of the turbine at higher or lower levels, as desired. To facilitate and expedite such adjustments, the shaft shall be supported by a substantial spring which shall counterbalance the entire turbine ejector in such a fashion as to require a slight downward pressure for low-level adjustments and a slight upward pressure for high-level adjustments. The shaft shall fit the motor suspension bracket so as to permit horizontal rotation of the turbine ejector to any angle within the tank. All castings shall be made of bronze or brass.

GG-B-00146b

3.4.2 Welding. Welds shall be thorough, nonporous, free from cracks and other imperfections. All welds shall be cleaned. All exposed welds shall be ground and polished to blend with the adjacent surfaces.

3.4.3 Plumbing. All unions and connections shall be properly fitted and capable of being broken and remade without causing damage or leaks.

3.5 Finish. All exposed sheet-metal parts, including the inside of tank, shall have a No. 4 finish. All piping, fixtures, and fittings shall be chromium-plated over nickel, and exposed surfaces shall have a highly polished finish.

3.6 Identification marking. Each whirlpool bath shall have a metal nameplate securely attached and permanently marked with the following:

Manufacturer's name or registered trademark

Type and model number

Serial number

Contract or purchase order number

Federal stock number

Electrical rating

Letters U.S.

3.7 Service data. The contractor shall furnish, with each unit, two copies of service data containing complete instructions for installation, operation, maintenance, and a list of component parts. This information shall specifically include instructions, drawings, and templates for plumbing and power wiring. The service data shall include such detailed information which shall permit ready installation and maintenance of the item. All information contained in the manual shall be suitably indexed to permit ready reference to the required information. Wiring diagrams shall be included for electrical items or components. Wiring diagrams, drawings, and descriptive material shall include adequate information so that the replacement parts can be ordered by the manufacturer's part number, and without confusion as to the item identification. Identical or

interchangeable replacement parts shall be identified by a single part number only. As soon as practicable after award of the contract or purchase order, the contractor shall furnish to the contracting officer, via the cognizant Government inspector, two preliminary copies of his proposed service data, for review and comment by Directorate of Medical Materiel, Defense Personnel Support Center. The preliminary service data shall be submitted sufficiently early to permit adequate review by the Directorate of Medical Materiel, Defense Personnel Support Center (based on a maximum period of 30 days for such review) and to allow incorporation by the contractor of required revisions and corrections in the final service data without delaying delivery under the contract or purchase order. In addition, the contractor shall mail 15 copies of the approved service data to the contracting officer for distribution.

Should the supplier have furnished acceptable manuals for the identical Item within two years preceding the date of contract, and propose to furnish manuals identical with those previously accepted, then the requirements for review of drafts and submission of 15 additional copies may be waived upon request.

3.8 Workmanship. Workmanship shall be first class throughout. Baths shall be free from defects which detract from their appearance or which may impair their serviceability.

4. SAMPLING, INSPECTION AND TEST PROCEDURES

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable to the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Inspection. Inspection, as used in this specification, is defined as both examination (such as visual or auditory investigation without the use of special laboratory appliances or procedures) and testing (determination by technical means of physical and chemical properties) of the item.

4.1.2 Certificates of quality. When available, certificates of quality, supplied by the manufacturer of the component or material, listing the specified test method and test results obtained, may be furnished in lieu of actual performance of such testing by the contractor.

GG-B-00146b

4.2 Sampling.

4.2.1 For examination, Sampling for examination shall be conducted in accordance with Military Standard MIL-STD-105.

	AQL Inspection level (defects per hundred units)	
For visual examination		
Major defects	II	1.0
Total (major and minor combined) defects	II	4.0
For dimensional examination	S-3	2.5

4.2.2 For tests. Sampling for tests shall be conducted in accordance with Military Standard MIL-STD-105 for inspection level S-4. Acceptance number shall be zero. Not less than three samples shall be taken regardless of lot size.

Table I. Sampling Tests

Component	Characteristic	Requirement	Test procedure
Bath	Leakage	3.4.1.1	4.4.2
Thermostatic water-mixing valve	Delivery capacity	3.4.1.3	4.4.3
	Delivery pressure		
	Maximum temperature		
Dial thermometer	Accuracy	3.4.1.4	4.4.4
Electric turbine ejector and aerator	Delivery rate	3.4.1.5	4.4.5
	Velocity		
	Width of stream		
	Volume of air		
Turbine ejector motor	Thermal cutout		
	Input	3.2.2 (a)	4.4.6.1
	Normal temperature	3.2.2 (b)	4.4.6.2
	Dielectric strength	3.2.2 (c)	4.4.6.3
	Stalled rotor and short circuit safety	3.2.2 (d) and 3.2.2 (e)	4.4.6.4 and 4.4.6.5

4.2.3 Raw materials. Four ounces of each lot of each metal (sheet; rod for beaded rim, pedestal for arm bath, turbine impeller shaft, and turbine ejector shaft) used in the construction of the baths shall be selected for chemical analysis.

4.3 Examination. The baths shall be examined to determine compliance with all requirements contained in this specification.

4.3.1 Classification of defects. Examination shall be conducted in accordance with the following classification of defects:

Categories and defects*

Major

- 101 Any component missing.
- 102 Any component fractured, split, cracked, punctured, cut, dented, sprung, malformed, creased, or otherwise impaired, affecting serviceability (check flanges and hems).
- 103 Any part misplaced, loose, or not in proper alignment, affecting serviceability.
- 104 Any sharp edge, burr, or sliver.
- 105 Any weld cracked, broken, or not sound.
- 106 Any screw stripped, missing, or loose.
- 107 Top edge of tank not a smooth, beaded rim; not neatly rolled over rod.
- 108 Crevices inside tank not smoothly and neatly filled with fillet of solder.
- 109 Temperature range of thermometer not as specified.
- 110 Motor rating not as specified.
- 111 End housings of the motor and shaft bearing not accurately aligned.
- 112 Turbine ejector elevator jams or binds; not provided with counter-balance spring; not provided with locking device to secure turbine ejector in position.

Minor

- 201 Finish not uniform; not free of coarse grind marks and scratched areas.
- 202 Any weld not continuous, not clean, not free of pitting, splatter, and discoloration.
- 203 Any exposed weld not ground smooth to blend with adjacent surfaces.
- 204 Unit not clean; not free of dirt, oil, and grease.
- 205 Identification marking missing, incomplete, illegible, or not permanently attached.
- 206 Service data incomplete or missing.

* Examination shall not be restricted to the classified possible defects listed above.

4.3.2 Dimensional examination. The baths shall be examined for defects in dimensions. Any dimension not within the tolerances specified herein shall be classified as a defect.

GG-B-00146b

4.4 Tests. Tests shall be conducted, as necessary, to determine compliance with specification requirements.

4.4.1 Chemical composition. Tests for chemical analysis shall be conducted in accordance with method 111.1 or 112.1 of Federal Test Method Standard No. 151.

4.4.2 Leakage of welded seams. The tank of the bath shall be subjected to a minimum internal pressure of 15 pounds per square inch. All seams shall be observed for signs of leakage.

4.4.3 Thermostatic mixing valve. The valve shall be connected to hot (not less than 150 deg. F.) and cold water lines having a pressure of not less than 40 pounds per square inch. The valve shall be operated to determine:

The delivery capacity.
The delivery pressure.
The maximum temperature.

4.4.4 Dial thermometer. The accuracy of the thermometer shall be determined to the nearest 0.5 deg. F.

4.4.5 Electric turbine ejector and aerator. The turbine ejector and aerator shall be operated at maximum pressure in accordance with the manufacturer's instructions to determine:

Gallons of water delivered.
Velocity of water delivered.
Width of output stream.
Volume of air delivered.
Functioning of thermal cutout.

4.4.6 Turbine ejector motor. The turbine ejector motor shall be tested for the following five tests described in 3.1.2.

4.4.6.1 Input test. The motor shall be connected to a circuit of rated 115 volts a-c, and input measured with a wattmeter while operating in the intended manner.

4.4.6.2 Normal temperature test. Thermocouples shall be attached to the running and starting windings of the motor. The motor shall be connected to a 120 volt a-c circuit and operated on a duty cycle of 30 minutes on, five minutes off, until constant temperatures are obtained.

4.4.6.3 Dielectric strength test. While still in a heated condition from the normal temperature test, the motor shall be subjected to an alternating current potential of 900 volts applied between the live parts and the enclosure for a period of one minute.

4.4.6.4 Stalled rotor test. The motor shall be connected to a circuit of 120 volts a-c and with the rotor stalled, be permitted to operate continuously for 15 days.

4.4.6.5 Limited short circuit test. Three samples of the motor overload protector shall be tested on a circuit limited to 200 amperes in series with a non-renewable cartridge fuse rated at 20 amperes. The protector shall be mounted in the motor and cotton placed around the motor enclosure surrounding the protector.

5. PREPARATION FOR DELIVERY

5.1 Packaging

5.1.1 Unit of issue. One (1) bath whirlpool, as specified, constitutes one unit of issue.

5.1.2 Level A.

5.1.2.1 Preparation. Each unit shall be disassembled as far as practicable. All accessories and disassembled parts shall be wrapped with UU-P-268 Kraft wrapping paper and cushioned with PPP-C-843 cellulosic cushioning material within one or more containers of appropriate size constructed in accordance with PPP-B-566, PPP-B-676, or PPP-B-636 except that commercial colors shall be acceptable. Closure shall be adequate to prevent spilling of contents under normal handling.

5.1.2.2 Tank. Exterior finished surfaces of the tank shall be protected by wrapping with kraft paper or by a kraft paper shroud, and by cushioning at points of contact of interior braces or interior faces of container with excelsior pads, flexible corrugated fiberboard, or other suitable materials. Wrapping and cushioning material shall be secured in position. Work shall be accomplished in such a manner as to insure against marring, scratching, or damage to the unit.

5.1.3 Level C. Units shall be packaged in standard commercial containers of the size and kind commonly used, which will afford the degree of protection required for shipment and use of the product for its intended purpose.

GG-B-00146b

5.2 Packing. Level A. Each unit shall be overpacked in an exterior container designed for type 3 load, and constructed in accordance with Federal Specification PPP-B-601, table II, using type III, class 1 plywood, or PPP-B-621, table IV. Closure shall comply with appendix of applicable specification. Strapping is not required for shipments forwarded to a receiving activity within the continental limits of the United States for Storage and redistribution. Each unit shall be lined, top and sides, with a waterproof barrier conforming to Federal Specification UU-P-271, class M-1, M-2, or M-3. The exterior container design shall include three skids of not less than 1-1/2 inches in thickness applied cross wise of base, so positioned as to facilitate handling with a forklift truck and to maintain unit in an upright position. The unit shall be adequately secured within the exterior container by means of bolts, wood braces, blocks, or other suitable devices, to insure against shifting and breakage, or marring of surfaces.

5.2.1 Level C. The subject commodity shall be packed in substantial commercial containers of the type, size, and kind commonly used for the purpose, so constructed as to insure acceptance and safe delivery by common or other carriers, at the lowest rate, to point of delivery called for in the contract or purchase order.

5.3 Marking.

5.3.1 Interior packages. Interior packages shall be marked to identify contents.

5.3.2 Exterior container. Exterior container shall be marked in accordance with MIL-STD-129. In addition, arrows shall be applied in accordance with paragraph 5.5.16.3 of MIL-STD-129. Instructions for opening the container shall be stencilled on the front panel and the center of balance and sling points shall be marked as specified in paragraph 5.5.16.5.

6. NOTES

6.1 Ordering data. Procurement documents should specify the following:

- (a) Title number and date of this specification
- (b) Size required (see 1.2.2)
- (c) Where preproduction sample shall be sent (see 3.1)
- (d) Level of packing (see 5.2)

6.2 This specification does not include all types, classes grades, or sizes of the commodity indicated by the title of this specification, or which are commercially available, but is intended to cover the types which are normally procured to meet Federal Government requirements.

Military custodians:

Army - MD
Navy - MS
Air Force - 03

Preparing activity:

Defense Supply Agency - DM

Review Activities:

Army - MD
Navy - MS
Air Force - 03

Review information is current as of the date of this document. For future coordination of changes to this document, draft circulation should be based on the information in the current DODISS.