

# ***MEDICAL MARKING STANDARD NO. 1***



***19 July 1999***

***DIRECTORATE OF MEDICAL MATERIEL  
DEFENSE SUPPLY CENTER PHILADELPHIA  
ATTN: DSCP-MSCBP  
700 ROBBINS AVENUE  
PHILADELPHIA, PA 19111-5092***

## **IMPORTANT NOTICE**

**This marking standard is *not applicable* to the Medical Prime Vendor Program. Marking requirements for prime vendor shipments shall be as specified in the prime vendor contract.**

**However, ALL prime vendor shipments of hazardous materiel shall comply with *all marking and labeling requirements of the applicable domestic and international transportation regulations.***

## INTRODUCTION

This standard contains marking requirements for all contractor-originated shipments of medical materiel to military supply depots and to medical treatment facilities (MTFs), and is applicable to both military and commercial packaging. This document replaces MIL-STD-129-2, Marking for Shipment and Storage – Medical Material, which has been canceled.

There are several significant changes:

- a. CAGE and complete item identification have been eliminated from the identification markings.
- b. Bar-coded NSN is no longer required on the intermediate package.
- c. Two bar codes (CAGE and CLIN) have been eliminated from the exterior (shipping) container and unitized load markings.
- d. MIL-STD-2073-1C military preservation method number and date of preservation (i.e., “M10-4/99”) will now be used for military preservation.
- e. The term “COMM’L” and date of preservation (i.e., “COMM’L 4/99”) will now be used for commercially preserved and packed materiel.

Several requirements have been clarified:

- a. Specific marking requirements, i.e., shelf life, storage legends, etc., for each NSN shall be as stated in the applicable contract or purchase order.
- b. For all hazardous materiel acquisitions, a copy of the MSDS shall be submitted to Defense Supply Center Philadelphia, ATTN: DSCP-MSCBP. In addition, a copy of the MSDS shall accompany each shipment of hazardous materiel.
- c. All DVD shipments shall be marked as specified in the purchase order. However, marking of ALL hazardous materiel shipments shall comply with all marking and labeling requirements of the applicable domestic and international transportation regulations, including requirement for submission of the MSDS.
- d. Marking of all hazardous materiel destined for shipment through a military aerial port via military aircraft shall comply with DLA I 4145.3.

Any questions, comments, requests for assistance/clarification, etc., may be directed to the point of contact listed in para. VI of this document.

---

# CONTENTS

PARA.	TITLE	PAGE
I.	SCOPE	7
II.	APPLICABLE DOCUMENTS AND PUBLICATIONS	7
II.A.	Government documents	7
II.B.	Non-Government documents	7
III.	TERMINOLOGY	8
III.A.	Abbreviations/Acronyms	9
III.B.	Definitions	10
IV.	ENGLISH-METRIC CONVERSION	14
Table I	Standard English-Metric Equivalents	14
Table II	Medical Marking Standard – English Metric Conversions	15
V.	GENERAL REQUIREMENTS	17
V.A.	Abbreviations	17
V.B.	Marking requirements	17
V.B.1.	Unit	17
V.B.1.a.	Commercial	17
V.B.1.b.	Military	17
V.B.2.	Intermediate package	17
V.B.3.	Exterior (shipping) container	17
V.B.3.a.	Identification/contract data	18
V.B.3.b.	Bar codes	18
V.B.3.c.	Destination address label	18
V.B.4.	Unitized load	18
V.B.4.a.	Identification/contract data	18
V.B.4.b.	Bar codes	18
V.B.4.c.	Destination address label	18
V.C.	Marking methods	19
V.D.	Marking size	19
V.E.	Marking placement	20
V.E.1.	Immediate container (individual package)	20
V.E.2.	Unit	20
V.E.3.	Intermediate package	21
V.E.4.	Exterior (shipping) container	21

PARA.	TITLE	PAGE
V.E.5.	Unitized load	22
V.E.6.	Bar codes	23
V.E.7.	Protected cargo	24
V.E.8.	Medical clothing and textile items	24
V.E.9.	Set (assembly) markings	25
V.E.10.	Deployable medical systems (DEPMEDS)	25
V.E.11.	Hazardous medical materiel (HAZMAT)	26
V.E.11.a.	Marking requirements	26
V.E.11.b.	Interior containers	26
V.E.11.c.	Exterior (shipping) containers	26
V.E.11.d.	Pilferable hazardous materiel	26
V.E.11.e.	Package configuration certification	26
V.E.11.f.	Material Safety Data Sheet (MSDS)	26
V.E.11.g.	Kits containing hazardous components	26
V.E.11.h.	Shipment via military aircraft	26
V.E.12.	Other required markings	28
V.E.12.a.	Shelf life markings	28
V.E.12.a.(1)	Expiration date	28
V.E.12.a.(2)	Date of manufacture	28
V.E.12.a.(3)	Inspection/test date	28
V.E.12.b.	Special handling	29
V.E.12.c.	Warranty markings	29
V.E.12.d.	Flash point markings	29
V.E.12.e.	Cytotoxic (antineoplastic) drugs markings	29
V.E.12.f.	Transportation special handling/protective service	30
V.E.12.g.	Perishable medical materiel	30
V.E.12.g.(1)	Frozen medical materiel	31
V.E.12.g.(2)	Constant refrigerated medical materiel	33
V.E.12.g.(3)	Limited unrefrigerated medical materiel	35
V.E.13.	Packing list	37
V.E.14.	Address markings	37
V.E.14.a	Contractor/vendor-originated shipment	37
V.E.14.b.	Military address	37
V.F	DVD/SPEDE and EDI requirements	38
V.G.	Prime vendor requirements	38
V.H.	UPN	38
VI.	POINT OF CONTACT	39

# FIGURES

<b>NUMBER</b>		<b>PAGE</b>
1.	Unit marking – Commercial Materiel – FSC 6505	20
2.	Unit marking – Commercial Materiel – All other FSCs	20
3.	Unit marking – Military Materiel – All FSCs	20
4.	Intermediate package marking – All FSCs	21
5.	Exterior (shipping) container marking – All FSCs Preferred bar code placement	22
6.	Exterior (shipping) container marking – All FSCs Optional bar code placement	22
7.	Unitized load marking – All FSCs	23
8.	Sample bar code formats – All FSCs	24
9.	Exterior (shipping) container – All FSCs Non-hazardous items ONLY – Protected Cargo	24
10	Set (assembly) – All FSCs	25
11	Identification/contract data markings – DEPMEDS items	25
12.	Exterior (shipping) container – All FSCs – Hazardous items	27
13.	Shelf-life – All FSCs	28
14.	Warranty – All FSCs	29
15.	Flash point – All FSCs	29
16.	Cytotoxic label – FSC 6505	29
17	DD Form 1387-2 – All FSCs	30
18.	DD Form 1502 – Perishable – Keep frozen	31
19.	DPSC Form 2770 – Notice for frozen medical materiel shipments	32
20	DD Form 1502-1 – Perishable – Constant refrigeration	33
21	DPSC Form 2770-1 – Notice for chilled medical materiel shipments	34
22	DD Form 1502-2 – Perishable – Limited unrefrigerated shipment	35
23	DPSC Form 2770-2 – Notice for limited unrefrigerated medical materiel shipments	36
24	Contractor/vendor-originated address label – All FSCs	37
25	Military address label – All FSCs	38

## **I. SCOPE.**

This document provides the minimum marking requirements for contractor-originated shipments of medical materiel, and is applicable to both military and commercial packaging.

This document shall be used for marking medical materiel in lieu of MIL-STD-129N and MIL-HDBK-129.

## **II. APPLICABLE DOCUMENTS AND PUBLICATIONS.**

The following documents and publications form a part of this document to the extent specified herein. Unless otherwise specified in the contract or purchase order, the document in effect on the issue date of the contract or purchase order shall apply.

### **A. GOVERNMENT DOCUMENTS**

#### **REGULATIONS**

**CODE OF FEDERAL REGULATIONS (CFR) - Title 49 CFR Transportation**

**DEFENSE FEDERAL ACQUISITION REGULATION (DFAR) SUPPLEMENT**

(Copies may be obtained from Superintendent of Documents, U. S. Government Printing Office, Washington, DC 20402.)

#### **JOINT MILITARY PUBLICATION**

**AFJMAN 24-204/TM 38-250/NAVSUP - Preparing Hazardous Materials for Military  
PUB 505/MCO 4030.19/DLAI 4145.3 Air Shipments**

(Copies may be obtained from Defense Logistics Agency, ATTN: DASC-W, 8725 John J. Kingman Road, FT Belvoir, VA 22060-6221.)

#### **MILITARY STANDARD**

**MIL-STD-2073-1C - Standard Practice for Military Packaging**

(Copies may be obtained from Defense Printing Service Detachment Office, Bldg 4D (NPM-DODSSP), 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

### **B. NON-GOVERNMENT DOCUMENTS**

#### **AUTOMATIC IDENTIFICATION MANUFACTURERS (AIM)**

**ANSI/AIM BC1 - Uniform Symbology Specification Code 39 (DoD Adopted)**

(Copies may be obtained from Automatic Identification Manufacturers (AIM USA), 634 Alpha Drive, Pittsburgh, PA 15238-2802.)

---

**ASTM**

**ASTM D 996 - Standard Terminology of Packaging and Distribution  
Environments (DoD Adopted)**

**ASTM D 5445 - Standard Practice for Pictorial Markings for Handling of Goods  
(DoD Adopted)**

(Copies may be obtained from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

**INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA)****Dangerous Goods Regulations**

(Copies may be obtained from International Air Transport Association, 2000 Peel Street, Montreal, Quebec H3A 2R4, CANADA.)

**INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO)****Technical Instructions for the Safe Transportation of Dangerous Goods by Air**

(Copies may be obtained from International Regulations Publishing and Distributing Organization, P. O. Box 60105, Chicago, IL 60660.)

**INTERNATIONAL MARITIME ORGANIZATION (IMO)****International Maritime Dangerous Goods (IMDG) Code**

(Copies may be obtained from International Maritime Organization, 4 Albert Embankment, London SE1 7SR, England.)

Non-Government documents and publications are normally available from the organizations that prepare or distribute them. They may also be available through libraries or other informational services.

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.

**III. TERMINOLOGY.**

General packaging definitions may be found in ASTM D 996, as well as other referenced documents. Hazardous material definitions are listed in Title 49 CFR, part 171, and other related publications. The following may also apply:

**A. Abbreviations/Acronyms.**

---

---



---

<b>AIM</b>	-	<b>Automatic Identification Manufacturers</b>
<b>ASTM</b>	-	<b>American Society for Testing and Materials</b>
<b>APO</b>	-	<b>Air Post Office</b>
<b>BT</b>	-	<b>Bottle</b>
<b>BX</b>	-	<b>Box</b>
<b>C</b>	-	<b>Celsius</b>
<b>CAGE</b>	-	<b>Commercial and Government Entity</b>
<b>CASKO</b>	-	<b>Component, Assembly, Set, Kit or Outfit</b>
<b>CFR</b>	-	<b>Code of Federal Regulations</b>
<b>CN</b>	-	<b>Can</b>
<b>CO</b>	-	<b>Container</b>
<b>CONUS</b>	-	<b>Continental United States</b>
<b>CS</b>	-	<b>Case</b>
<b>CU</b>	-	<b>Cube</b>
<b>DEPMEDS</b>	-	<b>Deployable Medical System</b>
<b>DDC</b>	-	<b>Defense Distribution Center</b>
<b>DDJC</b>	-	<b>Defense Distribution Depot, San Joaquin, CA</b>
<b>DDSP</b>	-	<b>Defense Distribution Depot, Susquehanna, PA</b>
<b>DLA</b>	-	<b>Defense Logistics Agency</b>
<b>DoD</b>	-	<b>Department of Defense</b>
<b>DoDAAC</b>	-	<b>Department of Defense Activity Address Code</b>
<b>DoDISS</b>	-	<b>Department of Defense Index of Specifications and Standards</b>
<b>DoT</b>	-	<b>Department of Transportation</b>
<b>DR</b>	-	<b>Drum</b>
<b>DSCP</b>	-	<b>Defense Supply Center Philadelphia</b>
<b>DTS</b>	-	<b>Defense Transportation System</b>
<b>DVD</b>	-	<b>Direct Vendor Delivery</b>
<b>DZ</b>	-	<b>Dozen</b>
<b>EA</b>	-	<b>Each</b>
<b>EDI</b>	-	<b>Electronic Data Interchange</b>
<b>EXP</b>	-	<b>Expiration</b>
<b>FMS</b>	-	<b>Foreign Military Sales</b>
<b>FPO</b>	-	<b>Fleet Post Office</b>
<b>FSC</b>	-	<b>Federal Supply Class</b>
<b>GSA</b>	-	<b>General Services Administration</b>
<b>HRI</b>	-	<b>Human Readable Interpretation</b>
<b>HAZMAT</b>	-	<b>Hazardous Materials</b>
<b>IATA</b>	-	<b>International Air Transport Association</b>
<b>IAW</b>	-	<b>In Accordance With</b>
<b>ICAO</b>	-	<b>International Civil Aviation Organization</b>
<b>IMDG</b>	-	<b>International Maritime Dangerous Codes</b>
<b>IMO</b>	-	<b>International Maritime Organization</b>
<b>INSP</b>	-	<b>Inspection</b>
<b>KT</b>	-	<b>Kit</b>
<b>MFD</b>	-	<b>Manufactured</b>
<b>NA</b>	-	<b>North American</b>
<b>NATO</b>	-	<b>North Atlantic Treaty Organization</b>
<b>NDC</b>	-	<b>National Drug Code</b>
<b>NIIN</b>	-	<b>National Item Identification Number</b>

---

---



---

NSN	-	National Stock Number
OCONUS	-	Outside Continental United States
OCR	-	Optical Character Reader
OSHA	-	Occupational Safety and Health Administration
PIIN	-	Procurement Instrument Identification Number
PN or P/N	-	Product/Part Number
PR	-	Pair
PSN	-	Proper Shipping Name
QTY	-	Quantity
QUP	-	Quantity per Unit Pack
RDD	-	Required Delivery Date
RL	-	Reel
RO	-	Roll
SAMMS	-	Standard Automated Materiel Management System
SDR	-	Supply Discrepancy Report
SE	-	Set
SER NO	-	Serial Number
SF	-	Standard Form
SKO	-	Set, Kit or Outfit
SPEDE	-	SAMMS Procurement by Electronic Data Exchange
STANAG	-	Standardization Agreement
TCN	-	Transportation Control Number
TP	-	Transportation Priority
UI or U/I	-	Unit of Issue
UN	-	United Nations
UPC	-	Universal Product Code
UPN	-	Universal Product Number
USPS	-	United States Postal Service
WT	-	Weight

## **B. Definitions.**

1. **Bar code.** Array of rectangular bars and spaces in a predetermined pattern representing coded elements of data that can be automatically read and interpreted by automatic bar code reading devices.

2. **Cognizant activity.** Activity having responsibility for a contract or jurisdiction over it. At a contractor's facility, the cognizant activity is the procuring contracting officer or the administrative contracting officer.

3. **Commercial and Government Entity (CAGE) code.** Five-position alphanumeric code which identifies each supplier of items to the Federal Government. The CAGE code may be found on the first page of the contract or purchase order in the same block as the awardee's name and address. The prefix "CAGE" shall be used to identify this number.

4. **Consignee (receiver).** Party to whom materiel is shipped and whose name and address appear in the "ULTIMATE CONSIGNEE" or "MARK FOR" block of the shipping label.

5. **Consignor (shipper).** Party who ships materiel and whose name and address appear in the "FROM" block of the shipping label.

---

6. **Contract or purchase order number.** Identification number assigned to the contract or purchase order. When applicable, the contract number may include a four-digit delivery order number. Also referred to as the procurement instrument identification number (PIIN). *NOTE: The third position of the PIIN is a numeric "zero", i.e., SP0200-99-M-ALFC, SP0200-99-D-BLFC-0001, etc.*

7. **Contract data markings.** Portion of required markings which includes the contract or order number and contractor's name and address.

8. **Controlled items.** Items which require additional control and security in accordance with published regulations and statutes, i.e., narcotics, drug abuse items, etc.

9. **Cube.** Total cube of the exterior (shipping) container or unitized load being marked. The cube shall be stated in cubic feet, in decimals rounded up to the nearest tenth of a cubic foot, and preceded by "CU". For unitized loads, the cube shall include the pallet or container base.

10. **Cytotoxic (antineoplastic) drug.** Drug that is highly toxic, mutagenic, teratogenic, and carcinogenic; used for cancer chemotherapy.

11. **Date manufactured.** Date the item was fabricated, processed, produced, or formed for use. For drugs, chemicals and biologicals, the date of manufacture shall conform to the definition established by the Food and Drug Administration, or other regulatory agencies. The date of manufacture shall not be shown for items having an expiration date.

12. **Date preserved.** Month and year that the product was packaged in the unit container, regardless of the date of exterior (shipping) container packing. When applicable, the military method shall precede the date preserved, i.e., "M41-4/99"; the letter "M" indicates that a military preservation method has been used; "41" is the MIL-STD-2073-1C method number; "4/99" indicates the date of preservation. For commercially preserved and packed material, the date preserved shall be shown as "COMM'L 4/99".

13. **Deployable medical system (DEPMEDS).** Hospital equipment system that is capable of being located in a desired or required area of operation during a contingency, war, or national emergency. The system includes all medical supplies and equipment and selected non-medical equipment such as electrical generators, environmental control equipment, dolly sets, rigid and fabric shelters, and power distribution systems.

14. **Expiration date.** Date beyond which non-extendible shelf life items (Type I) should be suspended from continued issue or use.

15. **Exterior (shipping) container.** Container which meets carrier regulations and is capable of protecting the contents from damage during shipment, handling, and storage. Depending on the item being supplied, an exterior (shipping) container may contain one or more units and/or intermediate packages.

16. **Gross weight.** Total weight of the exterior (shipping) container or unitized load being marked. The gross weight shall be stated in pounds, rounded up to the nearest pound, and shall be preceded by "WT". For unitized loads, the gross weight shall include the weight of the pallet or container base.

17. **Hazardous material (HAZMAT).** Substance or material which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property

when transported in commerce, and which has been so designated in Title 49 CFR or in other hazardous materials publications, effective on the date of shipment.

- 18. Hazardous materials packaging.** Packaging having the ability to perform to a specific level of integrity when subjected to performance tests.
- 19. Human-readable interpretation (HRI).** Exact interpretation of the encoded bar code data presented in a human-readable font.
- 20. Identification markings.** Portion of required markings which includes the NSN, P/N, quantity and unit of issue, levels of protection and weight and cube.
- 21. Inspection/test date.** Date by which all extendible shelf life items (Type II) should be subjected to testing or inspection.
- 22. Immediate container.** First wrap when the unit contains a specific quantity of individually-wrapped items; also referred to as the primary container.
- 23. Intermediate package.** Package containing two or more unit containers of identical items.
- 24. Kit.** Packed unit or group of items normally used in modification, installation or survival.
- 25. Levels of protection.** Extent of preservation and packing required to prevent deterioration of or damage to supplies and equipment due to hazards to which they may be exposed during shipment, handling and storage. Military levels of protection are specified in the contract or purchase order, and may be either level A or level B. Level A provides maximum protection to meet the most severe worldwide shipment, handling, and storage conditions; level B provides protection to meet moderate worldwide shipment, handling, and storage conditions. Levels of protection are not applicable for commercially preserved and packed materiel.
- 26. Lot (control) number.** Series of numbers and/or letters established to record production and control of the product.
- 27. Manufacturer.** Owner/operator of a factory or establishment that produces, on the premises, materials, supplies, articles, or equipment required under the contract or purchase order.
- 28. Military preservation.** Preservation designed to protect an item during shipment, handling, indeterminate storage, and distribution to consignees worldwide. Military preservation methods and procedures are defined in MIL-STD-2073-1C. When applicable, military methods of preservation shall be as specified in the contract or purchase order.
- 29. National stock number (NSN).** Thirteen-digit number divided into two parts, the first 4 digits represent the Federal Supply Class (FSC) and the last 9 digits represent the National Item Identification Number (NIIN). The NSN shall include appropriate spaces or dashes. The prefix "NSN" shall not appear in any markings.
- 30. Perishable item.** Item that normally requires some type of environmental control, such as refrigeration or freezing during shipment and storage.
- 31. Pilferable items.** Materiel having a ready resale value and is especially subject to theft.
-

---

**32. Preservation.** Application of protective measures, including cleaning, drying, preservative materials, barrier materials, cushioning, and containers, when necessary.

**33. Product/part number (PN or P/N).** Number assigned to the item by the supplier/manufacturer; i.e., catalog number, National Drug Code (NDC), etc. The prefix “PN” or “P/N” shall be used to identify this number. If no product/part number has been assigned to the item, this entry may be omitted.

**34. Project code.** Three-position alphanumeric code that identifies plans, programs, and exercises. When applicable, the project code will be stated in the contract or purchase order.

**35. Proper shipping name (PSN).** Name of a hazardous item shown in Roman print (not italics) in part 172 of Title 49 CFR and in other hazardous materials related publications.

**36. Protected cargo.** Items required to be secured, accounted for, identified, segregated or handled in order to insure their integrity. Protected cargo includes controlled, classified, sensitive, and pilferable items; i.e., narcotics, drug abuse items (needles, etc.), alcohol, precious metal alloys, selected medical clothing and textile items, etc.

**37. Quantity.** Number of units of issue in a unit container, intermediate package, exterior (shipping) container, and unitized load. The quantity is always listed together with the Government unit of issue designation, i.e., 1 BT, 12 PG, 144 EA, etc.

**38. Quantity per unit pack (QUP).** Quantity of individual items in a unit container. For most medical NSNs, the QUP is one.

**39. Required delivery date (RDD).** Date when materiel is required by the consignee.

**40. Semi-perishable item.** Item that does not normally require refrigeration or freezing during shipment and storage.

**41. Serial number.** Number on the item assigned by the manufacturer or the Government for identification or control.

**42. Set.** Unit and its assemblies, subassemblies, and parts, which together perform an operational function.

**43. Shelf life.** Total period of time that an item is suitable for issue and use.

**44. Shelf life item.** Item of supply that possesses unstable or deteriorative characteristics to the degree that a storage time period must be assigned to insure that the item will perform satisfactorily in service. There are two types of shelf life items: type I items have a definite non-extendible period of shelf life; type II items have an assigned shelf life period which may be extended after the completion of prescribed inspection/test/restorative actions.

**45. Transportation control number (TCN).** Seventeen-position, alphanumeric data element assigned to control a shipment through the transportation pipeline. When applicable, the TCN will be specified in the contract or purchase order.

**46. United Nations (UN) identification number.** Serial number assigned to a hazardous item under the UN classification system.

---

**47. Unitization.** Assembly of a quantity of containers in a single load for ease in shipping, handling, and storage. With prior approval from the procuring activity, unitization may be accomplished by any suitable commercial means.

**48. Unit of issue (UI or U/I).** Standard designation assigned to each item. The applicable UI (U/I) is indicated in the contract or purchase order, i.e., EA, BT, PG, etc.

**49. Warranty markings.** Markings that apply when a shipment contains items with a service life defined in a specific amount of hours, a specific end date, or a specific operating time. When applicable, the requirement for warranty markings will be stated in the contract or purchase order.

#### IV. ENGLISH-METRIC CONVERSION.

The following tables are provided for information purposes. For convenience in calculation, Metric equivalents are expressed to two decimal places (nearest hundredth), wherever practical.

**TABLE I**

**STANDARD ENGLISH-METRIC EQUIVALENTS**

**Volume:**

1 fluid ounce	=	29.57 milliliters	1 quart	=	0.95 liter
1 pint	=	0.47 liter	1 gallon	=	3.79 liters

**Weight:**

1 ounce (avoirdupois)	=	28.35 grams
1 pound (avoirdupois)	=	453.59 grams or 0.454 kilogram

**Length:**

1 inch	=	2.54 centimeters
1 foot	=	30.48 centimeters or 0.305 meter
39.37 inches	=	1 meter (3.28 feet = 1 meter)

TABLE II

## MEDICAL MARKING STANDARD - ENGLISH METRIC CONVERSIONS

## Volume (Liquids):

Gallons = Liters

1	3.79
5	18.95
50	89.50
55	208.45

## Weight:

Ounces = Grams

1	29.35
10	283.50

(1000 grams = 1 kilogram)

## Volume (Solids):

Cubic feet = Cubic meters

1.0	0.030
1.2	0.036
1.3	0.039
2.0	0.060
2.5	0.075
3.0	0.090
4.1	0.123
4.7	0.141
5.3	0.160

Cubic feet = Cubic meters

6.0	0.180
6.5	0.195
8.4	0.250
9.0	0.270
10.0	0.300
12.0	0.360
30.0	0.900
60.0	1.800
66.5	1.995

Pounds = Kilograms

1.0	0.45
2.2	1.00
10.0	4.54
11.0	4.99
50.0	22.70
52.0	23.61
65.0	29.51
75.0	34.05

Pounds = Kilograms

100.0	45.40
125.0	56.75
144.0	65.37
150.0	68.10
200.0	90.80
500.0	227.00
1000.0	454.00
1700.0	771.80

TABLE II (Continued)

Inches	=	Centimeters	Inches	=	Centimeters
0.0258		0.07	1.0		2.54
0.03		0.08	1.5		3.81
0.0625		0.16	2.0		5.08
0.095 (3/32)		0.24	2.5		6.35
0.10		0.25	3.0		7.62
0.125 (1/8)		0.32	4.0		10.16
0.188 (3/16)		0.48	5.0		12.70
0.375 (3/8)		0.95	10.0		25.40
0.50		1.27	50.0		27.00
0.875 (7/8)		2.22	100.0		54.00
0.90		2.29	144.0		65.76

NOTE: 10 millimeters equals 1 centimeter

Feet	=	Meters
1.00		0.305
3.28		1.000
25.00		7.620
50.00		15.240
150.00		45.730

#### Temperature Conversion:

To change degrees Celsius (C) to degrees Fahrenheit (F), multiply temperature by 1.8 and add 32.

To change degrees Fahrenheit (F) to degrees Celsius (C), subtract 32 from the temperature and divide by 1.8.

Degrees Fahrenheit	=	Degrees Celsius
0		-18
32		0
35		2
46		8
100		38
212		100

## V. GENERAL REQUIREMENTS.

**A. Abbreviations.** The correct unit of issue for marking purposes is the unit of issue as listed in the contract or purchase order. Periods shall not be used with abbreviations.

**B. Marking requirements.** Medical materiel shall be marked in English as specified herein and in the applicable contract or purchase order. Identification and contract data markings, bar codes, and address labels shall be supplied, as applicable. Additional markings, i.e., shelf life, storage legends, special markings for perishable items, controlled items, hazardous items, etc., shall be supplied when applicable. Exact placement of markings may vary slightly from the examples. In addition, *for all items except DEPMEDS and hazardous items*, order of markings may vary slightly. Markings include, but are not limited to, the following:

**1. Unit.** In addition to any commercial markings, the following markings shall be supplied on each unit, as applicable (see para. V.E.2.d.):

**a. Commercial** (see figures 1 and 2).

NSN

Government quantity and unit of issue (i.e., 1 BT, 1 PG, 1 EA, etc.)

**b. Military** (see figure 3).

NSN

Manufacturer's Part number (preceded by "P/N" or "PN")

Government quantity and unit of issue (i.e., 1 BT, 1 PG, 1 EA, etc.)

Contract/purchase order number (including 4-digit delivery order number when applicable)

Military method and date of unit preservation

**2. Intermediate package.** The following markings shall be supplied on each intermediate package, as well as any additional markings as specified in the contract or purchase order (see figure 4):

NSN

Manufacturer's Part Number (preceded by "P/N" or "PN")

Government quantity and unit of issue (total number of units of issue in intermediate package)

Contract/purchase order number (including 4-digit delivery order number when applicable)

Type and date of unit preservation (either Military method and date preserved or "COMM'L" and date preserved, as applicable)

**3. Exterior (shipping) container.** The following markings shall be supplied on the side of the exterior (shipping) container having the largest marking surface, as well as any additional markings as specified in the contract or purchase order (see figures 5 and 6):

**a. Identification/contract data.**

NSN

Manufacturer's Part Number (preceded by "P/N" or "PN")

Government quantity and unit of issue (total number of units of issue in intermediate package)

Type and date of unit preservation (either Military method and date preserved or "COMM'L" and date preserved, as applicable)

Weight

Cube

Contract/purchase order number (including 4-digit delivery order number when applicable)

Complete name and address of contractor (as listed in contract/purchase order)

**b. Bar codes (see figure 8).**

NSN

Contract or purchase order number (including 4-digit delivery order number when applicable)

**c. Destination address label.** Destination address label shall be supplied on each exterior (shipping) container; however, when palletization is required, the destination address label is only required on each unitized load. See figures 24 and 25 for sample labels.

**4. Unitized load.** The following markings shall be supplied on two adjacent sides of the unitized load, as well as any additional markings as specified in the contract or purchase order (see figure 7):

**a. Identification/contract data.**

NSN

Manufacturer's Part Number (preceded by "P/N" or "PN")

Government quantity and unit of issue (total number of units of issue)

Type and date of unit preservation (either Military method and date preserved or "COMM'L" and date preserved, as applicable)

Weight (total weight of load, including the pallet – preceded by "WT")

Cube (total cube of load, including the pallet – preceded by "CU")

Contract or purchase order number (including 4-digit delivery order number when applicable)

Complete name and address of contractor (as listed in contract/purchase order)

**b. Bar codes.**

NSN

Contract or purchase order number (including 4-digit delivery order number when applicable)

**c. Destination address label.** Destination address label shall be supplied on one marked side of the unitized load. See para. IV.E.14 and figures 24 and 25.

**C. Marking methods.**

1. All surfaces to be marked shall be clean, dry and free of contaminants. All markings shall be clear, legible, durable, nonfading, and permanent. Unless otherwise specified in the contract or purchase order, all markings shall be black or dark blue, except when applied to a surface on which they are not legible. In this case, markings shall be supplied in a color that provides a definite contrast, i.e., white or yellow markings on an olive drab surface. Prior approval is required from the procuring activity if any color other than black or dark blue is used for markings.

2. Marking may be accomplished by any suitable means, i.e., stenciling, ink jet printing, machine printing, laser printing, silk screen printing, labeling, etc. Labels may be used to supply required markings on commercially-marked containers, provided all markings that may be required by applicable regulations are not obliterated. Markings may be supplied on one label or on multiple labels (i.e., one label for each set of required markings). When labels are used, they shall be weather-resistant, remain securely affixed and have a finish capable of withstanding normal handling during shipment and storage.

3. Hand printing is not acceptable on the unit container. Hand printing may be used on the intermediate package, exterior (shipping) container and unitized load only for marking of the serial number, piece number, total pieces, and gross weight and cube. Hand printing shall be either black or navy blue and shall be clear, legible, and permanent.

4. Markings on the unitized load may be placed on a marking board by using a label or by direct stenciling. For loads with smooth, flat surfaces, markings may be applied directly to two adjacent sides of the load, either by using a label or by direct stenciling; markings shall extend from one container to another.

5. If not inherently waterproofed, all markings on the exterior (shipping) container and unitized load shall be waterproofed by any suitable means, i.e., varnish, acrylic coating compound, label adhesive, clear transparent pressure-sensitive tape, etc.

#### **D. Marking size.**

1. Markings on all sizes of containers shall be in capital letters of equal height and shall be proportionate to the available marking space on the unit, intermediate package, exterior (shipping) container and unitized load.

2. For intermediate packages and exterior (shipping) containers, stenciled or printed lettering for identification, contract data, and special markings shall be not less than 1/4 inch nor more than 1-1/4 inch in height. When labels are used, lettering shall be not less than 3/32 inch in height. Label size shall not exceed the available marking surface area of the container.

3. For unitized loads, stenciled or printed lettering for identification, contract data, and special markings shall be proportionate to the overall size of the unitized load; however, markings shall be not less than 3/4 of an inch in height.

4. Each ANSI/AIM BC1 Code 39 bar code shall be not less than 1/4 inch nor more than 1-1/4 inch in height.

#### **E. Marking placement.** Required markings shall be placed on each container as follows:

**1. Immediate container (individual package).** When supplied, immediate containers (individual packages) shall be marked in accordance with commercial practice and as specified in the contract or purchase order. Markings may be supplied in any suitable location. NOTE: The immediate container may also be referred to as “primary container”.

**2. Unit.**

a. Markings specified in the contract or purchase order shall be supplied on the unit container in any suitable location, provided all commercial markings required by applicable regulations are not obliterated.

b. When the unit container is wrapped in a transparent film wrap, markings shall be applied to the container, in lieu of the outside wrap. When the immediate container (bottle, tube, ampul, vial, etc.) is packaged in a unit carton, required markings need only be supplied on the unit carton, unless otherwise specified in the contract or purchase order. When a bottle is supplied without a unit carton, specified markings may be supplied in any suitable location, except on the cap or the bottom of the bottle.

c. For items that do not have a unit container, i.e., stainless steel pails, etc., unit markings may be supplied on a tag that is securely fastened to the unit.

d. When the contract or purchase order specifies military preservation and Level A or Level B packing, complete identification and contract data markings on the unit may be required in the contract or purchase order. When the contract or purchase order specifies commercial packaging, commercial markings shall be supplied on the unit, together with the NSN for FSCs 6505/6508 and the NSN and quantity and unit of issue for all other FSCs.

e. ANSI/AIM BC1 Code 39 bar codes are not required on the unit unless it is also the exterior (shipping) container.

e. See figures 1-3 for sample unit markings.

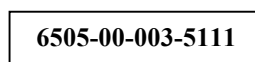


Figure 1. Commercial Materiel  
FSC 6505

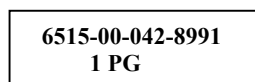


Figure 2. Commercial Materiel  
All Other FSCs

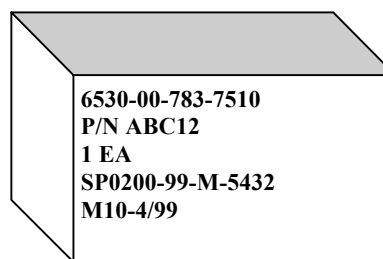


Figure 3. Military Materiel  
All FSCs

**3. Intermediate package.**

a. Identification, contract data, and other markings specified in the contract or purchase order shall be supplied on the package in a location that permits markings to be easily read while

materiel is in storage. ANSI/AIM BC1 Code 39 bar codes are not required on the intermediate package.

b. See figure 4 for sample intermediate package markings. Markings as shown in figure 4 are required on all intermediate packages. When the contract or purchase order calls for military preservation, the intermediate package shall be marked with the method preservation and date of pack, i.e., M10-4/99.

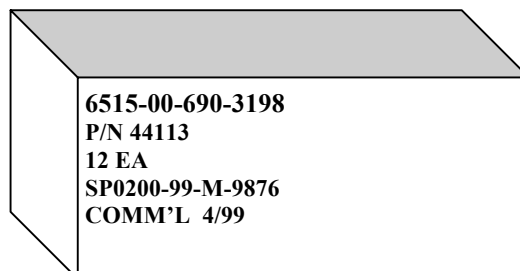


Figure 4. Intermediate package  
All FSCs

4. Exterior (shipping) container. Markings on the exterior (shipping) container shall include identification, contract data, other markings as specified in the contract or purchase order, bar codes, and destination address, as follows:

a. Identification and contract data markings specified in the contract or purchase order shall be supplied in the upper left corner of the side of the exterior (shipping) container having the largest marking surface. In addition, when an exterior (shipping) container is 10 cubic feet or larger, identification and contract data markings shall also be supplied on the end of the container that is to the left of the identification-marked side.

b. Other markings specified in the contract or purchase order may include shelf life and storage legend(s). The preferred location for the lot (control) number is on same line the contract or purchase order number, with the shelf life and storage legend(s) on the lines immediately following the weight and cube.

c. Bar code markings shall be supplied on the exterior (shipping) container. The preferred location is the upper right corner opposite the identification and contract data markings; optionally, bar codes may be supplied in the lower right corner.

d. Destination address markings shall be supplied on the exterior (shipping) container when unitization is not required.

e. In rare instances, insufficient space may be available on the identification-marked side of the exterior (shipping) container for proper application of the bar code and/or destination address markings. In those instances, these markings may be applied to the opposed or an adjacent side of the container.

f. See figures 5 and 6 for sample exterior (shipping) container identification/contract data, and bar code markings, and location of destination address label. See figure 24 for sample address markings for sample address markings for contractor shipments for depot stock.

DESTINATION  
ADDRESS  
LABEL HERE

Figure 5. Exterior (Shipping) Container  
All FSCs  
Preferred Bar Code Placement

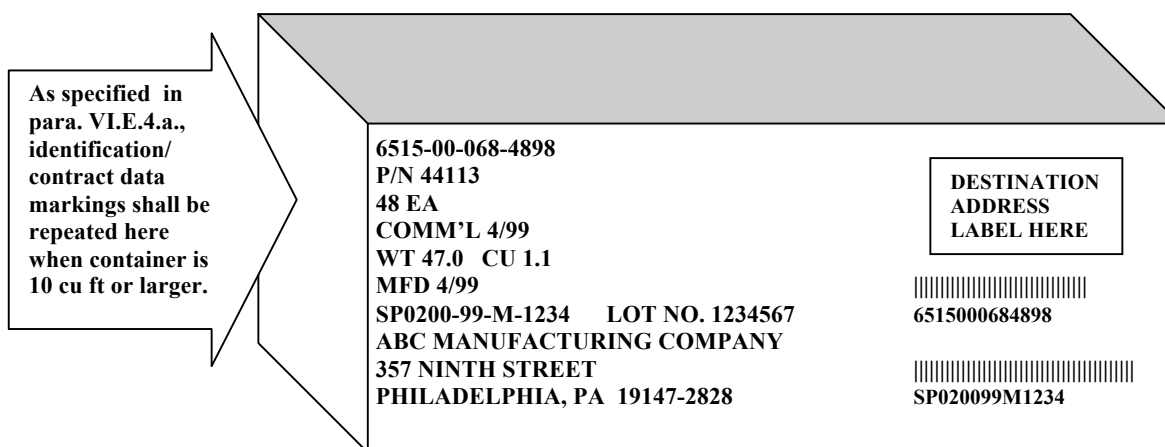


Figure 6. Exterior (Shipping) Container  
All FSCs  
Optional Bar Code Placement

f. See paragraph IV.E.7. for identification and contract data markings applicable to exterior (shipping) containers for DEPMEDS items. See para. IV.E.10. for marking requirements applicable to hazardous medical materiel.

## 5. Unitized load.

a. Markings on the unitized load shall include identification, contract data, other markings as specified in the contract or purchase order, bar codes, and destination address. When the bar codes on the exterior (shipping) containers comprising the unitized load are scannable, no additional bar codes are required. Markings shall be supplied on two adjacent sides of the load. All markings as specified in the contract or purchase order, including identification, contract data,

bar codes, and destination address, shall be supplied on one side; identification markings only shall be supplied on an adjacent side. In addition, when the load is wrapped with shrink or stretch wrap, markings may not be clearly visible through the wrap. Therefore, pressure-sensitive labels containing required markings may be placed on the outermost layer of wrap on either marked side of the load.

b. See figure 7 for sample unitized load markings. See figure 24 for sample address markings for contractor shipments for depot stock.

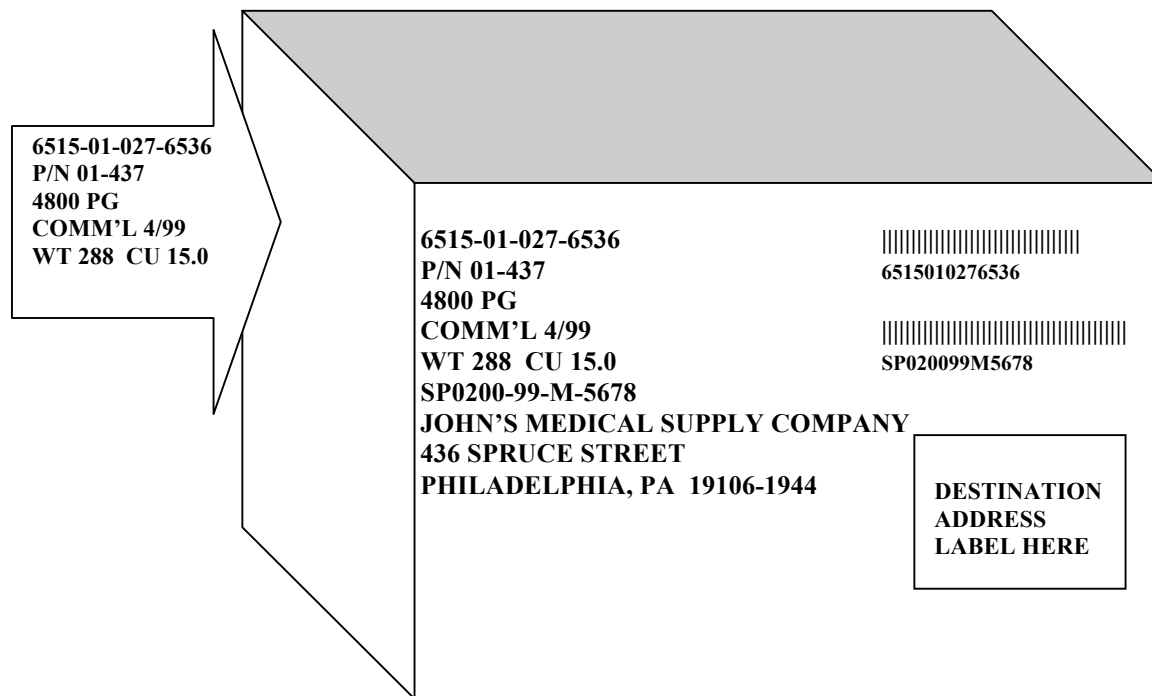


Figure 7. Unitized Load  
All FSCs

## 6. Bar codes.

a. ANSI/AIM BC1 Code 39 bar codes are required on the exterior (shipping) container and unitized load, as specified herein and in the contract or purchase order. Standard bar code density range shall be from 3.0 to 9.4 characters per inch (CPI). Bar codes shall be in a horizontal configuration, and shall not include any spaces or dashes. Unless otherwise specified in the contract or purchase order, the bar code markings shall include the NSN and PIIN. The bar-coded contract or purchase order number (PIIN) shall include the four-digit delivery order number, when applicable. The HRI shall be an exact interpretation of the bar code data and shall not contain any spaces or dashes. The preferred location for the HRI is below the bar code; optionally, it may be above the bar code.

b. As a minimum, bar codes markings shall be 2.0 inches (50.8 mm) from the top and bottom edges and 1.0 inch (25.4 mm) from the side edges. A minimum distance (quiet zone) of 0.25 inch (6.35 mm) from the nearest identification/contract data marking shall be maintained.

c. See figure 8 for sample bar code formats.

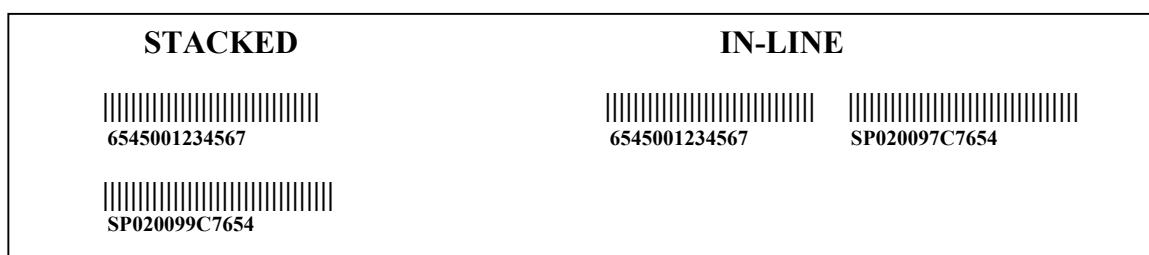


Figure 8. Sample Bar Code Formats

## 7. Protected cargo.

a. Protected cargo includes all items classified as controlled, classified, sensitive, or pilferable. All required markings shall be supplied, except the term “MEDICAL SUPPLIES” shall be used in lieu of the NSN on the exterior (shipping) container and unitized load. In addition, only the bar code for the contract or order number shall be shown; the bar code for the NSN shall be omitted. Signature service shall be used for all shipments of protected cargo.

b. For items classified as both protected cargo and hazardous material, i.e., ALCOHOL, USP, the NSN and Proper Shipping Name (PSN) shall be listed. In addition, material shall be marked as specified in para. V.E.11.

c. See figure 9 for sample protected cargo markings. Preferred bar code location is the upper right corner; see figure 9 for the optional bar code location.

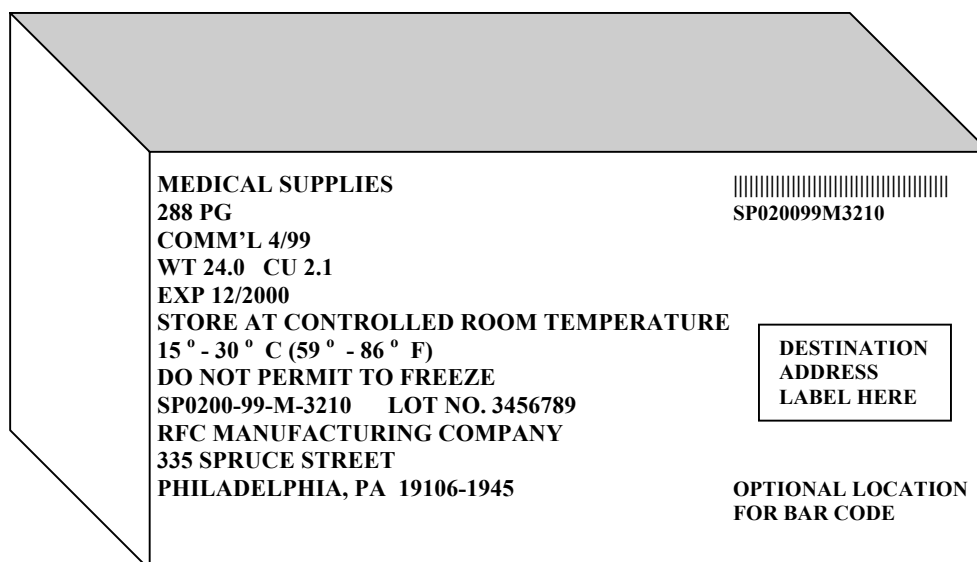


Figure 9. Exterior (Shipping) Container  
All FSCs  
Non-hazardous Items ONLY

8. Medical clothing and textile items. Medical clothing and textile items include such items as clothing (physician’s smocks, operating gowns, etc.), sheets, blankets, bags, etc., managed by the Directorate of Medical Materiel, Defense Supply Center Philadelphia. Accountability is necessary for clothing and textile items used in medical facilities. The following additional markings are required on each exterior (shipping) container: shipment number, lot (control) number, name and

address of the manufacturer, and container number. The container number shall be consecutively numbered from each shipping point for the duration of the contract.

9. Set (assembly) markings. When a set (assembly) is packed in two or more exterior (shipping) containers, all containers shall be shipped together. Each container shall be marked with its own number within the set, the total number of containers making up the set, and the number of the set within each shipment. Set (assembly) markings shall be placed in the lower right corner of the identification-marked side of the container. A two-inch black disc shall be placed above the numbers on each container. For surfaces on which black is not legible, marking shall be

white or yellow and a white or yellow disc shall be applied. See figure 10 for sample set (assembly) markings.

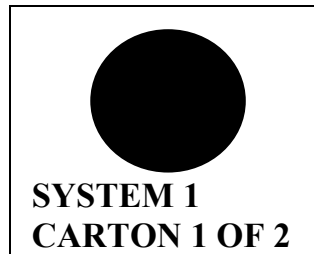


Figure 10. Set (assembly) markings  
All FSCs

**10. Deployable medical systems (DEPMEDS) markings.** DEPMEDS items shall be marked as specified herein and in the applicable contract or purchase order. In addition, identification and contract data markings on exterior (shipping) containers containing DEPMEDS items shall be listed in the order shown in figure 11.

NSN Contractor's PN, when applicable Complete Item Identification Quantity and Unit of Issue Gross Weight and Cube Serial Number Contract Number Contractor's Complete Name and Address <sup>1/</sup> Manufacturer's Name Type or Model Number Electrical Characteristics Date of Manufacture prefixed by "MFD" <sup>2/</sup> Index No. _____
<sup>1/</sup> The manufacturer's name is required only when the item is manufactured by someone other than the contractor.  <sup>2/</sup> The line following "Index No." shall be left blank.

Figure 11. Identification/Contract Data Markings  
DEPMEDS Items

## **11. Hazardous medical materiel (HAZMAT).**

**a. Marking requirements.** Hazardous medical materiel shall be marked and labeled as specified in applicable domestic and international transportation regulations, in the contract or purchase order, and as specified herein. Depending upon the mode of transpiration, HAZMAT shall be labeled in accordance with Title 49 CFR, ICAO Technical Instructions (excluding para. 1.4 of Chapters 1 and 3), and International Maritime Dangerous Goods Code (IMDG), as applicable.

**b. Interior containers.** All interior containers shall be labeled and marked as specified in the contract or purchase order, and as specified herein.

c. **Exterior (shipping) containers.** Exterior (shipping) containers identified for international transportation shall be marked, labeled, and documented to meet UN requirements in accordance with the appropriate modal regulation. Unless otherwise specified, UN-recommended certification markings for HAZMAT prescribed herein shall be placed on the side of the exterior (shipping) container opposite the side containing the identification, contract data and bar code markings.

d. **Pilferable hazardous material.** Exterior (shipping) containers containing material classified as both hazardous and pilferable shall be marked as specified for hazardous material, except, the NSN and Proper Shipping Name shall be shown in all markings (see para. V.E.7.b).

e. **Package configuration certification.** The supplier's signed certification that the package configuration meets Title 49 CFR, and either ICAO or IMDG requirements, shall be included on the packing list (DD Form 250 may be used) accompanying each shipment.

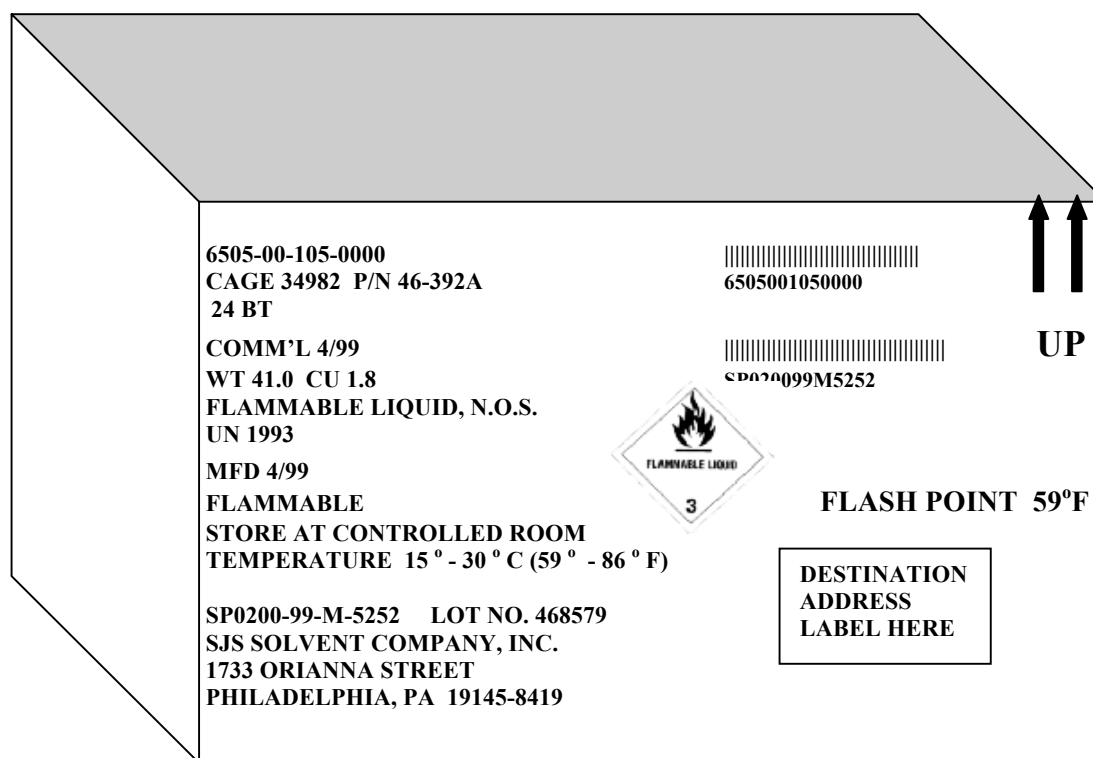
f. **Material Safety Data Sheet (MSDS).** A current MSDS shall be supplied with each shipment of hazardous medical materiel. In addition a copy of the MSDS shall be supplied to Defense Supply Center Philadelphia, ATTN: DSCP-MSCBP; the MSDS shall be annotated with the National Stock Number and the item description.

g. **Kits containing hazardous components.** Kits containing hazardous components in small quantities (i.e., adhesives, inks, solvents, and other flammable liquids) shall be marked and labeled in accordance with the requirements specified herein. The UN packaging certification markings are required only when the quantity of HAZMAT in the individual kit or exterior (shipping) container containing 2 or more kits exceeds the quantity designed as exempted in the applicable modal regulation(s).

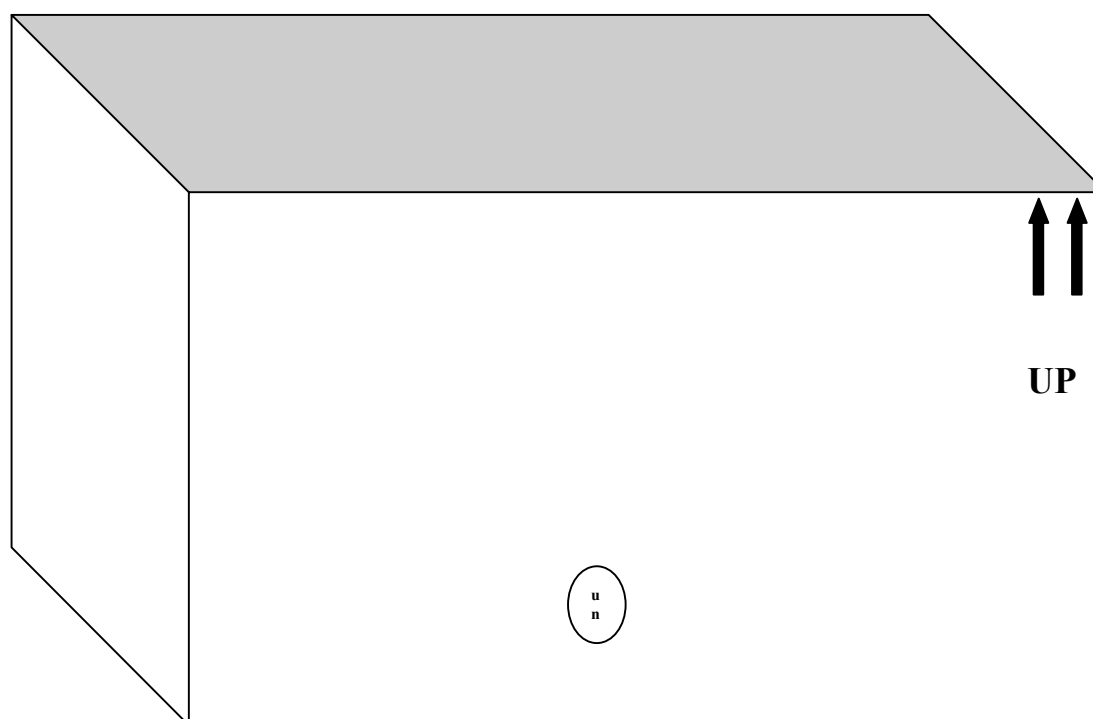
h. **Shipment via military aircraft.** Marking of hazardous materiel destined for shipment through a military aerial port via military aircraft shall comply with DLAI 4145.3. Each shipment shall be accompanied by a completed standard commercial "Shipper's Declaration for Dangerous Goods".

i. See figure 12 for sample HAZMAT markings.

---



FRONT



REVERSE

Figure 12. Exterior (Shipping) Container  
All FSCs  
Hazardous Items

**12. Other required markings.** Other required markings shall be specified in the contract or purchase order. They shall be supplied in a conspicuous location on the identification-marked side of the container. If sufficient space is not available on the identification-marked side, they may be supplied on the opposite side, unless otherwise specified in the contract or purchase order. However, they shall not be supplied on the bottom of the container. Other required markings may include, but are not limited to, the following:

**a. Shelf life markings.** When applicable, shelf-life markings shall be supplied as specified in the contract or purchase order. Shelf-life markings include the expiration date, date of manufacture, and inspection/test date. There are two types of shelf-life items. Type I items have a definite non-extendible period of shelf life; type II items have an assigned shelf-life time period that may be extended after completion of inspection, test, or restorative action. For Type I and Type II shelf-life items, the date of manufacture shall be shown for items without an expiration date. For Type I and Type II shelf-life items with an expiration date, the expiration date shall be shown in lieu of the date of manufacture. For Type II shelf-life items, the inspection/test date shall be shown in addition to either the date of manufacture or expiration date. The inspection/test date shall be shown on the intermediate package (if supplied), exterior (shipping) container and unitized load. Specific shelf-life markings are as follows:

(1). **Expiration date.** For Type I items, the expiration date is the date by which an item should be discarded as being no longer suitable for issue or use. For Type II items, the expiration date is the date when an item should be inspected or tested to determine the inspection/test date.

(2). **Date of manufacture.** The date of manufacture is the date the item was produced, fabricated, processed, or formed for use. Items requiring a date of manufacture may be either Type I or Type II.

(3). **Inspection/test date.** The inspection/test date is the date by which Type II items should be subjected to inspection, test, or restoration. The inspection/test date shall be left blank for Type II drugs, pharmaceuticals, and biologicals. For all other Type II items, the inspection/test date shall be supplied.

(4) See figure 13 for examples of shelf-life markings.

EXPIRATION DATE	INSPECTION/TEST DATE
EXP 10/2002	DRUGS/PHARMACEUTICALS/BIOLOGICALS
	EXP DATE 10/2002
	INSP/TEST DATE _____
DATE OF MANUFACTURE	ALL OTHER MEDICAL ITEMS
MFD 4/99	MFD DATE 4/99
	INSP/TEST DATE 4/2002

Figure 13. Shelf-Life Markings  
All FSCs

**b. Special handling.** Markings such as “TOP”, “UP”, “THIS SIDE UP”, “GLASS”, “KEEP DRY”, “PERISHABLE”, “KEEP FROZEN”, etc., shall be supplied on exterior (shipping)

containers, as applicable. When necessary, arrows shall be used with the legends "TOP" or "UP". Special handling markings shall not interfere with or obscure any other markings. Special handling and storage symbols may also be found in ASTM D 5445.

c. **Warranty markings.** Warranty markings are not required for medical materiel unless a contract or delivery order specifically states that all containers are to be marked with a warranty legend. The warranty markings shall be applied by labeling, tagging, or printing and shall be prefaced by "WARRANTED ITEM". All information shall be in upper case letters of the same style font and shall be located adjacent to or above the contract data markings. See figure 14 for sample warranty markings.

**WARRANTED ITEM**  
**WARRANTY EXPIRES**  
**AFTER 1000 HOURS**  
**OF OPERATION**

**WARRANTED ITEM**  
**WARRANTY EXPIRES**  
**1 JANUARY 2002**

**WARRANTED ITEM**  
**WARRANTY GOOD FOR**  
**180 DAYS FROM DATE**  
**ITEM IS PUT INTO USE**

Figure 14. Sample Warranty Markings  
All FSCs

d. **Flash point.** For items having a flash point of not more than 141 degrees Fahrenheit (F) or 60.5 degrees Celsius (C), each intermediate package and exterior (shipping) container shall be marked with the flash point. The flash point shall be preceded by the words "FLASH POINT" and may be shown in degrees F or C, or both. The flash point shall be determined by using testing methods prescribed in Title 49 CFR. See figure 15.

**FLASH POINT 80° F**

Figure 15. Flash Point  
All FSCs

e. **Cytotoxic (antineoplastic) drug markings.** Cytotoxic (antineoplastic) drugs shall be marked and labeled as specified in applicable transportation regulations and in the contract or purchase order. In addition, each intermediate package and exterior (shipping) container containing cytotoxic (antineoplastic) drugs shall be marked with a diamond-shaped figure with the word "CYTOTOXIC" printed inside the figure in black letters on a white background. See figure 16.



Figure 16. Cytotoxic Label  
FSC 6505

f. **Transportation Special Handling/Protective Services.** Non-hazardous shipments of medical materiel moving by military-controlled aircraft that require special handling/protective services shall have a DD Form 1387-2 (Special Handling Data/Certification) label affixed to the address size of the exterior (shipping) container. See figure 17.



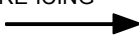
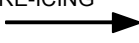
ITEM NOMENCLATURE	NET QUANTITY PER PACKAGE		TRANSPORTATION CONTROL NO	
	CONSIGNMENT GROSS WEIGHT		DESTINATION	
SUPPLEMENTAL INFORMATION				LOAD STORAGE/GROUP
				FLASH POINT
This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Dept of Transportation. THIS IS A MILITARY SHIPMENT! (Complete applicable blocks below)				
This shipment is within the limitations prescribed for PASSENGER AIRCRAFT / CARGO AIRCRAFT ONLY (Delete nonapplicable aircraft AFR 71-4, TM 38-250, NAVSUPPUB 505, MCO P4030 .19, DLAM 4145.3, Paragraph		ATA/IATA/IMCO REGULATIONS		
DOD 4500 32R (MILSTAMP)		49 cfr	PARAGRAPH	EXEMPTION
			173.7 (a)	DOT-E 7573
ADDRESS OF SHIPPER		TYPED NAME, SIGNATURE AND DATE		
DD Form 1387-2, JUN 86		Previous editions are obsolete.		Form Approved/OMB No 0704-0188
<b>SPECIAL HANDLING DATA/CERTIFICATION</b>				

Figure 17. DD Form 1387-2  
All FSCs

**g. Perishable medical materiel markings.** Perishable medical materiel shall be marked as specified herein and in the contract or purchase order. Markings shall include "ARROW" and "FRAGILE" markings, together with the applicable label (DD Forms 1502, 1502-1 and 1502-2) applied to the address side of the exterior (shipping) container, or, as an alternate, to the size opposite the address side. When the size of the container precludes application of the label to either side, the label may be applied in any fashion, provided it does not interfere with any required markings; however, the label shall not be applied to the bottom of the container. The appropriate notification form (DPSC Forms 2770, 2770-1 or 2770-2) shall be placed inside each exterior (shipping) container prior to sealing. *(NOTE: With the renaming of the Defense Personnel Support Center (DPSC) to the Defense Supply Center Philadelphia (DSCP), and the recent relocation of DSCP to 700 Robbins Avenue, Philadelphia, PA 19111-5092, these labels and forms are being revised to reflect the new name and mailing address. Until the revisions are completed, existing stock may be used.)* Labels and notification forms are as follows:

**(1) FROZEN MEDICAL MATERIEL:****DD Form 1502 (Frozen Medical Materiel Shipment - Perishable -Keep Frozen).**

This green pressure-sensitive label shall be used for perishable frozen medical materiel that requires the constant temperature to be maintained below 32° F. Applicable icing and time data shall be inserted on the label at the time of shipment. See figure 18.

<b>FROZEN MEDICAL MATERIEL SHIPMENT</b>				Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Service, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, D.C. 20503. Please DO NOT RETURN your form to either of these addresses.					
<b>PERISHABLE - KEEP FROZEN</b>					
<b>VACCINE</b>  <b>TEMPERATURE MUST BE MAINTAINED BELOW 32 ° F</b>					
REQUIRED DELIVERY DATE (Calendar date)					
THIS PACKAGE PACKED AT ORIGIN					
DATE	TIME	POUNDS OF DRY ICE		BY (Name)	
<p align="center"><b>IMPORTANT</b></p> <p>To insure delivery of this vaccine in a satisfactory condition, it is necessary that this container be re-iced with DRY ICE on or before time indicated below. (Greenwich Meridian Time is used for overseas shipments.)</p> <p>____ POUND(S) DRY ICE WILL SAFEGUARD CONTENTS FOR ____ HOURS WHEN RE-ICING IS DONE. AT FIRST RE-ICING POINT, CROSS OUT PREVIOUS BLOCK (Left column below) AND ENTER NEW DATE AND TIME NEXT RE-ICING IS DUE.</p>					
<b>MUST BE DRY RE-ICED NOT LATER THAN</b> 		<b>DRY ICE ACTUALLY ADDED</b>			
DATE	FIRST DRY RE-ICING	DATE	POUNDS	DRY ICED BY	
HOUR		HOUR			
DATE	SECOND DRY RE-ICING	DATE	POUNDS	DRY ICED BY	
HOUR		HOUR			
<p align="center"><b>INSTRUCTIONS</b></p> <p>Break tape on outer container and insert necessary dry ice. IMMEDIATELY re-seal outer container and RECORD this operation on the log above. DO NOT handle this vaccine or permit container to remain open longer that is necessary for DRY re-icing.</p> <p><b>NOTE: FAILURE TO COMPLY WITH INSTRUCTIONS MAY ENDANGER LIVES.</b></p> <p>If materiel has thawed or if shipment arrives without dry ice, refreeze immediately. Report details by fastest means to Defense Personnel Support Center (DPSC), Directorate of Medical Materiel, 2800 S. 20<sup>th</sup> Street, Philadelphia, PA 19145-5099. Document discrepancies in accordance with AR 55-38/NAVSUP PUB 459/AFM 75-34/MCOP 4610.19/DLAR 4500.15. DO NOT issue or destroy materiel until disposition instructions are received from DPSC.</p>					

DD Form 1502, MAY 96 (EG)

Previous editions are obsolete.

Figure 18. DD Form 1502  
Perishable – Keep Frozen

**DPSC Form 2770 (Notice for Frozen Medical Materiel Shipments).**

**This notice provides instructions for reporting potential discrepancies, and shall be supplied inside each exterior (shipping) container. See figure 19.**

**NOTICE FOR FROZEN MEDICAL MATERIAL SHIPMENTS**

**SPECIAL NOTE:** REMOVE FROZEN TEMPERATURE INDICATOR IMMEDIATELY TO PREVENT DISCOLORATION OF CONTAINER.

**IF THIS SHIPMENT IS RECEIVED WITH NO DRY ICE IN THE CONTAINER, OR IF THE COLORED ICE IN THE PLASTIC INDICATOR TUBE HAS MELTED, TAKE THE FOLLOWING ACTIONS:**

1. Place the material in freezer below 32° F.
2. Suspend the material from issue and use and report discrepancy on SF-361 (DISREP) or SF 364 (ROD) as appropriate, to:

Defense Personnel Support Center, DLA  
 Directorate of Medical Materiel  
 ATTN: DPSC-MRCM  
 2800 S. 20th Street  
 Philadelphia, PA 19145-5099

3. Include the following data in the report: (*Use separate report for each item*)

- |   |  |
|---|--|
| (a) National Stock Number               | (j) Present Storage condition  |
| (b) Complete Nomenclature               | (k) Temperature or adverse storage condition existing during shipment and furnish environmental temperature at time of receipt.                                  |
| (c) Name of manufacturer and contractor | (l) Nature of the complaint - Indicate if ice in indicator tube was melted and whether drug was warm to touch upon opening box.                                  |
| (d) Date of manufacture                 | (m) Name of last known carrier from which material was received and final destination for shipment.  |
| (e) Expiration date                     | (n) TCN or GBL numbers.  |
| (f) Lot or control numbers              | (o) Date and hour material delivered by carrier.   |
| (g) Contract and/or requisition numbers | (p) Date and hour material returned to freezer.  |
| (h) Total dollar value                  | (q) Other details concerning conditions of material. Identify origin of shipment ( <i>Depot or contractor's name</i> ), and all entries recorded on DD Form 1502 |
| (i) Quantity                            | (r) Name, place, telephone number of person most familiar with this situation. ( <i>Autovon and commercial with area code</i> ).                                 |

4. **DO NOT** issue or destroy material until disposition instructions are received from DPSC.
5. Attach the following to the SF-361 or 364
  - a. DD Form 1502 label (*remove from the package*)
  - b. Copy of GBL and/or copy of carrier's delivery document.
  - c. Copy of the Report of Shipment (*REPSHIP*) if received by teletype (or information furnished if (*REPSHIP*) received by telephone).

**DPSC FORM 2770  
 MAR 96**




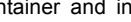
PREVIOUS EDITIONS OBSOLETE

Notice for Frozen Medical Material Shipments

**(2) CONSTANT REFRIGERATED MEDICAL MATERIEL:**

**DD Form 1502-1 (Chilled Medical Materiel Shipment - Perishable - Keep Chilled).**

This orange pressure-sensitive label shall be used for perishable medical materiel that requires constant refrigeration temperature to be maintained between 35 ° F and 46 ° F. Applicable icing and time data shall be inserted on the label at the time of shipment. See figure 20.

<b>CHILLED MEDICAL MATERIEL SHIPMENT</b>				Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Service, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, D.C. 20503. Please DO NOT RETURN your form to either of these addresses.					
<b>PERISHABLE - KEEP CHILLED</b>					
<b>TEMPERATURE MUST BE MAINTAINED AT 35 ° F TO 46 ° F</b>					
REQUIRED DELIVERY DATE (Calendar date)					
THIS PACKAGE PACKED AT ORIGIN					
DATE	TIME	POUNDS OF WATER ICE		BY (Name)	
<b>IMPORTANT</b> To insure delivery of this vaccine in a satisfactory condition, it is necessary that this container be re-iced with water on or before time indicated below. (Greenwich Meridian Time is used for overseas shipments.) _____ POUND(S) WATER ICE WILL SAFEGUARD CONTENTS WHEN RE-ICING IS DONE. AT FIRST RE-ICING POINT, CROSS OUT PREVIOUS BLOCK (Left column below) AND ENTER NEW DATE AND TIME NEXT RE-ICING IS DUE.					
<b>MUST BE WATER RE-ICED NOT LATER THAN</b>		<b>WATER ICE ACTUALLY ADDED</b>			
DATE	<b>FIRST WATER RE-ICING</b>  	DATE	POUNDS	WATER ICED BY	
HOUR		HOUR			
DATE	<b>SECOND WATER RE-ICING</b>  	DATE	POUNDS	WATER ICED BY	
HOUR		HOUR			
<b>INSTRUCTIONS</b>					
Break tape on outer container and insert necessary water ice. IMMEDIATELY re-seal outer container and RECORD this operation on the log above. DO NOT handle this vaccine or permit container to remain open longer than is necessary for water re-icing. <b>NOTE: FAILURE TO COMPLY WITH INSTRUCTIONS MAY ENDANGER LIVES.</b> If materiel has frozen or if temperature has exceeded 46 ° F, refrigerate IMMEDIATELY. Report details by fastest means to Defense Personnel Support Center (DPSC), Directorate of Medical Materiel, 2800 S. 20 <sup>th</sup> Street, Philadelphia, PA 19145-5099. Document discrepancies in accordance with AR 55-38/NAVSUP PUB 459/AFM 75-34/MCOP 4610.19/DLAR 4500.15. DO NOT issue or destroy materiel until disposition instructions are received from DPSC.					

DD Form 1502-1, MAY 96 (EG)

Previous editions are obsolete.

Figure 20. DD Form 1502-1  
Perishable – Constant Refrigeration

**DPSC Form 2770-1(Notice for Chilled Medical Materiel Shipments).**

This notice provides instructions for reporting potential discrepancies, and shall be supplied inside each exterior (shipping) container. See figure 21.

## NOTICE FOR CHILLED MEDICAL MATERIAL SHIPMENTS

### IF THIS SHIPMENT IS RECEIVED WITH THE WATER ICE THAWED TAKE THE FOLLOWING ACTIONS

1. Place the material in chill space. (Refrigeration temperature 35° to 46° F)
2. Suspend the material from issue and use and report discrepancy on SF 361 (DISREP) or SF 364 (ROD) as appropriate, to:

Defense Personnel Support Center, DLA  
 Directorate of Medical Materiel  
 ATTN: DPSC-MRCM  
 2800 S. 20th Street  
 Philadelphia, PA 19145-5099

3. Include the following data in the report: (*Use separate report for each item*)

- |   |   |
|---|---|
| <p>(a) National Stock Number</p> <p>(b) Complete Nomenclature</p> <p>(c) Name of manufacturer and contractor</p> <p>(d) Date of manufacture</p> <p>(e) Expiration date</p> <p>(f) Lot or control numbers</p> <p>(g) Contract and/or requisition numbers</p> <p>(h) Total dollar value</p> <p>(i) Quantity</p> | <p>(j) Present Storage condition</p> <p>(k) Temperature or adverse storage condition existing during shipment and furnish environmental temperature at time of receipt.</p> <p>(l) Nature of the complaint</p> <p>(m) Name of last known carrier from which material was received and final destination for shipment</p> <p>(n) TCN or GBL numbers.</p> <p>(o) Date and hour material delivered by carrier.</p> <p>(p) Date and hour material returned to refrigeration.</p> <p>(q) Other details concerning conditions of material. Identify origin of shipment (<i>Depot or contractor's name</i>), and all entries recorded on DD Form 1502-1.</p> <p>(r) Name, place, telephone number of person most familiar with this situation. (<i>Autovon and commercial with area code</i>).</p> |
|---|---|

4. **DO NOT** issue or destroy material until disposition instructions are received from DPSC.

5. Attach the following to the SF-361 or 364
  - a. DD Form 1502-1 label (*remove from the package*)
  - b. Copy of GBL and/or copy of carrier's delivery document.
  - c. Copy of the Report of Shipment (*REPSHIP*) if received by teletype (or information furnished if (*REPSHIP*) received by telephone).

**DPSC FORM 2770-1**

**MAR 96**

(EF)

PREVIOUS EDITIONS OBSOLETE

Figure 21. DPSC Form 2770-1  
 Notice for Chilled Medical Material Shipments

### (3) LIMITED UNREFRIGERATED MEDICAL MATERIEL:

**DD Form 1502-2 (Limited Unrefrigerated Medical Materiel Shipment – Perishable).**  
**This red pressure-sensitive label shall be used for perishable medical materiel which has a**

**limited unrefrigerated time period permitted (receipt of shipment by consignee is assured within a specified number of days). See figure 22.**

<b>LIMITED UNREFRIGERATED MEDICAL MATERIEL SHIPMENT</b>			Form Approved OMB No. 0704-0188		
Public reporting burden for this collection of information is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Service, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, D.C. 20503. Please DO NOT RETURN your form to either of these addresses.					
<b>PERISHABLE</b>					
<b>REQUIRED DELIVERY DATE (Calendar date)</b>					
<b>IMPORTANT</b>					
This package contains Medical Materiel which may be unrefrigerated during transit provided the cumulative time out of refrigeration does not exceed _____ hours after removal time indicated below. This materiel must be returned to refrigeration upon receipt. If delayed in route, return to refrigeration of 35 ° F to 46 ° F temperature.					
<b>REMOVED FROM REFRIGERATION</b>			<b>RETURNED TO REFRIGERATION</b>		
<b>DATE</b>	<b>HOUR</b>	<b>PLACE</b>	<b>DATE</b>	<b>HOUR</b>	<b>PLACE</b>
<b>NOTE: FAILURE TO COMPLY WITH INSTRUCTIONS MAY ENDANGER LIVES.</b>  DO NOT FREEZE or allow to be subjected to temperature above 95 ° F at any time. If material has been frozen or if temperature has exceeded 95 ° F refrigerate immediately. Report details by fastest means to Defense Personnel Support Center (DPSC), Directorate of Medical Materiel, 2800 S. 20 <sup>th</sup> Street, Philadelphia, PA 19145-5099. Document discrepancies in accordance with AR 55-38/NAVSUP PUB 459/AFM 75-34/MCOP 4610.19/DLAR 4500.15. DO NOT issue or destroy materiel until disposition instructions are received from DPSC.					

**DD Form 1502-2, MAY 96 (EG)**

Previous editions are obsolete.

**Figure 22. DD Form 1502-2  
Perishable – Limited Unrefrigerated Shipment**

**DPSC Form 2770-2(Notice for Limited Unrefrigerated Medical Materiel Shipments).**  
**This notice provides instructions for reporting potential discrepancies, and shall be supplied inside each exterior (shipping) container. See figure 23.**

**NOTICE FOR LIMITED UNREFRIGERATED MEDICAL MATERIAL SHIPMENTS**

***IF THIS SHIPMENT IS RECEIVED BEYOND THE REQUIRED DELIVERY DATE, OR IF THE MATERIAL MAY HAVE BEEN EXPOSED TO TEMPERATURE OVER 95° OR BELOW 32° F, TAKE THE FOLLOWING ACTIONS:***

1. Place the material in chill space. (Refrigeration temperature 35° to 46° F)
2. Suspend the material from issue and use and report discrepancy on SF-361 (DISREP) or SF 364 (ROD) as appropriate, to:

Defense Personnel Support Center, DLA  
 Directorate of Medical Materiel  
 ATTN: DPSC-MRCM  
 2800 S. 20th Street  
 Philadelphia, PA 19145-5099

3. Include the following data in the report: *(Use separate report for each item)*

- |   |   |
|---|---|
| (a) National Stock Number               | (j) Present Storage condition   |
| (b) Complete Nomenclature               | (k) Temperature or adverse storage condition existing during shipment and furnish environmental temperature at time of receipt.                                     |
| (c) Name of manufacturer and contractor | (l) Nature of the complaint   |
| (d) Date of manufacture                 | (m) Name of last known carrier from which material was received and final destination for shipment.   |
| (e) Expiration date                     | (n) TCN or GBL numbers.   |
| (f) Lot or control numbers              | (o) Date and hour material delivered by carrier.  |
| (g) Contract and/or requisition numbers | (p) Date and hour material returned to refrigeration  |
| (h) Total dollar value                  | (q) Other details concerning conditions of material. Identify origin of shipment ( <i>Depot or contractor's name</i> ), and all entries recorded on DD Form 1502-2. |
| (l) Quantity                            | (r) Name, place, telephone number of person most familiar with this situation. ( <i>Autovon and commercial with area code</i> ).                                    |

4. **DO NOT** issue or destroy material until disposition instructions are received from DPSC.
5. Attach the following to the SF-361 or 364
  - a. DD Form 1502-2 label (*remove from the package*)
  - b. Copy of GBL and/or copy of carrier's delivery document.
  - c. Copy of the Report of Shipment (*REPSHIP*) if received by teletype (or information furnished if (*REPSHIP*) received by telephone).

**DPSC FORM-2770-2**  
**MAR 96**

(EF)

PREVIOUS EDITIONS OBSOLETE

**Notice for Limited Unrefrigerated Medical Material Shipments**

**13. Packing list.** A packing list shall be supplied with each shipment of medical materiel. DD Form 250 may be used as the packing list. At least one copy shall be placed inside each exterior (shipping) container. One copy shall be sealed in a suitable water-resistant envelope and shall be affixed to the outside of container no. 1. Exterior packing lists are required on all contractor-originated shipments of medical materiel, except for most shipments of protected cargo. For shipments of controlled, classified, and pilferable items, the packing list shall be placed inside container no. 1. The container shall be marked with the legend "PACKING LIST HERE" or any similar legend.

**14. Address markings.** Address markings as specified in the contract or purchase order shall be supplied on each exterior (shipping) container.

**a. Contractor/vendor-originated shipment label.** The contract or purchase order number may be listed as the TCN, or, when specified in the contract or purchase order, the TCN may be a requisition number. Project code and RDD (required delivery date) are required only if specified in the contract or purchase order; omit project code and RDD from the address label when not required. The address label shall be supplied on the marked side of the container and shall not interfere with any required markings. If adequate space is not available on the marked side, the address label shall be placed on the opposite side. However, when the shipment requires unitization, the address label need only be supplied on one of the marked sides of the unitized load. See figure 24 for sample address markings for contractor shipments of depot stock. See figures 5 and 6 for placement of destination address label on the exterior (shipping) container. See figure 7 for placement of destination address label on the unitized load.

TCN:	SP0200-99-M-LCJS
FROM:	CBA MANUFACTURING COMPANY 2900 ROGERS STREET PHILADELPHIA, PA 19145-5099
TO:	SW3100 TRANSPORTATION OFFICER DEFENSE DISTRIBUTION DEPOT SUSQUEHANNA SUSQUEHANNA SITE WEST 5450 CARLISLE PIKE CODE EMI BLDG 109 – RECEIVING MECHANICSBURG, PA 17055-0789
PROJECT CODE:	STP
RDD:	350
WT 100.0	CU 18.4
PALLET 1 OF 5	

Figure 24. Address Label  
All FSCs

**b. Military address label.** When required, a DD Form 1387 shall be supplied. Transportation priority (TP) 1, 2 or 3 should be clearly identified in the TP block of the DD Form 1387. Minimum height of the TP numeral shall be three-fourths of an inch. See figure 25.

<b>MILITARY SHIPMENT LABEL</b>	Form Approved. OMB No. 0704-0188
TRANSPORTATION CONTROL NUMBER	2. POSTAGE DATA

3. FROM		TYPE SERVICE
5. SHIP TOPQE		TRANS PRIORITY
7. PQD		PROJECT
9. ULTIMATE CONSIGNEE OR MAKER FOR	10. WT. (This piece)	11. RDD
	12. CUBE (This piece)	13. CHARGES
	14. DATE SHIPPED	15. FMS CASE NUMBER
	15. PIECE NUMBER	
	17. TOTAL PIECES	

DD FORM 1387, NOV 86 (EG)

PREVIOUS editions are obsolete.

Perform (DLA)

Figure 25. Military address label  
All FSCs

#### **F. DVD, SPEDE and EDI requirements.**

1. For contractor-originated shipments of medical materiel in response to DVD, SPEDE and EDI requirements, materiel shall be marked as specified in the contract or purchase order.
2. For material requiring special handling (i.e., protected cargo, hazardous, perishable, etc.) required markings as specified in the contract or purchase order and as specified herein shall apply.
3. Hazardous medical materiel shall be marked and labeled in accordance with applicable domestic and international transportation regulations. See paras. V.E.11.a. through V.E.11.h. for applicable marking requirements. In addition, marking of hazardous materiel destined for shipment on military aircraft shall comply with DLA 4145.3. Each shipment shall be accompanied by a completed standard commercial "Shipper's Declaration for Dangerous Goods".

#### **G. Prime vendor requirements.**

1. For all shipments under the prime vendor program, material shall be marked as specified in the prime vendor contract. For non-pharmaceutical healthcare products, marking shall include a Universal Product Number (UPN) bar code.
2. For material requiring special handling (i.e., protected cargo, hazardous, perishable, etc.) additional markings in accordance with commercial practice and as specified in the prime vendor contract shall apply.

3. Hazardous medical materiel shall be marked and labeled in accordance with applicable domestic and international transportation regulations. A current MSDS shall accompany each shipment. In addition, marking of hazardous materiel destined for shipment on military aircraft shall comply with DLAI 4145.3; each shipment shall be accompanied by a completed standard commercial "Shipper's Declaration for Dangerous Goods".

#### **H. UPN.**

1. The UPN is a machine-readable bar code and is the single ordering number for a non-pharmaceutical healthcare product being supplied through the Medical Prime Vendor Program. Each UPN, which consists of the manufacturer's identifier and product identification number, is unique to a manufacturer's specific product, and cannot be duplicated. At the manufacturer's option, each UPN may conform to either the Uniform Code Council (UCC) or Health Industry Business Communication Council (HIBCC) primary data structure.

2. The UPN requirement is not applicable to non-prime vendor shipments of medical materiel to military supply depots and to medical treatment facilities. However, containers marked with the UPN are acceptable, provided all required markings as specified herein and in the contract or purchase order, including the NSN, are supplied.

3. NOTE: ANSI/AIM BC1 (Uniform Symbology Specification Code 39) is not applicable to the UPN requirement.

### **VI. POINT OF CONTACT.**

A. For clarification of packaging and marking requirements, to request additional copies of this Marking Standard (document can be provided either in hard copy or electronically), or to request a supply of DD Forms 1502, 1502-1, 1502-2 or DPSC Forms 2770, 2770-1, 2770-2, contact:

Defense Supply Center Philadelphia  
ATTN: DSCP-MSCBP (Miss L. Connors)  
700 Robbins Avenue  
Philadelphia, PA 19111-5092

VOICE: COMM (215) 737-4189 / DSN 444-4189

FAX: COMM (215) 737-8139 or 8150 / DSN 444-8139 or 8150

E-MAIL: lconnors@dscp.dla.mil

B. When requesting forms, include in your request the form number(s), the number of copies desired, your complete mailing address and a point of contact (name and telephone number).

---