

**INCH-POUNDS**

FED:STD:123H  
August 8, 2007  
SUPERSEDING  
FED: STD: 123G  
June 6, 1997

**FEDERAL STANDARD**

**Marking for Shipment (Civil Agencies)**

The General Services Administration has authorized the use of this federal specification by all federal agencies.

**1. SCOPE:** This document establishes requirements for marking unit , intermediate and transport packages, and unit loads. Packaging and marking terms related to requirements herein are clarified in section 3.

**2. REFERENCE DOCUMENTS:** The following documents form a part of this description to the extent specified herein. Unless a specific issue is identified, the issue in effect on the date of invitation for bids or request for proposal shall apply.

ASTM D 5445, Standard Practice for Pictorial Markings for Handling of Goods. Application for copies should be addressed to ASTM International, 100 Barr Harbor Drive, W. Conshohocken, PA 19428, [www.ASTM.org](http://www.astm.org).

ISO/IEC 16388 : Information Technology : Automatic Identification and Data  
ANSI X3.182: (R95/R00): Barcode Print Quality Guideline  
: Applications for ISO or ANSI copies should be addressed to American National Standards Institute, Washington, DC. Headquarters, 1819 L Street, NW. 6th floor, Washington, DC 20036, <http://www.ansi.org> or [www.iso.org](http://www.iso.org).

MHIA, MH10.8.1: Linear Barcode and Two-Dimensional Symbols Used in Shipping, Receiving and Transport Applications. [www.mhiastore.org](http://www.mhiastore.org). MH10.8.1: 2000

DoD 4500.9-R - Defense Transportation Regulations Part II, Cargo movement. Office of Public Affairs, United States Transportation Command, Scott Air Force Base, IL 62225:5357, [www.transcom.mil](http://www.transcom.mil).

MIL-STD-129 - DoD Standard Practice for Military Marking For Shipment & Storage Document Automation and Production Service, Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111:5094 or <http://assist.daps.dla.mil/online>.

**3. DEFINITIONS :**

3.1 Unit container or unit package: the first tie, wrap, or container applied to a single item, a quantity of the same item, a set, or an item with all its component parts. The unit package constitutes a complete and identifiable package containing the unit of issue of a product for ultimate use (also called a *primary package*).

3.2 Consumer package: a primary package or container (which may be enclosed in a secondary package or container) designed to contain, store, and protect from the point of manufacture to the point of use, a product intended for household or individual use and or retail sale.

3.3 Intermediate container or package: a wrap, box, or bundle (that is, a container) that contains two or more unit packages of identical items (also called a *secondary package*).

3.4 Transport package: exterior: shipping container or package used to protect goods during the process of distribution (handling, storage and transportation). A container that is sufficiently strong to be used in commerce for packing, storing, and shipping commodities, such as a box, barrel, crate, or drum. Transport packages delivered to a GSA Distribution Center(s), for the purposes of this standard, shall be capable of re-distribution using small parcel carrier service without further packaging.

3.5 Unit Load: unitized load in packaging, consisting of articles or containers secured together so as to be handled as an entity. In distribution, an item or assembly of items assembled or restrained for handling and transportation as a single entity such as a palletized unit load fixed to a pallet. The unit load shall not be confused as a transport package; each transport package consolidated on a pallet shall be marked in accordance with section 4.1.2.

3.6 Industrial package or packaging: a package or packaging used for the transportation or storage of commodities, the contents of which are not meant for retail sale without being repackaged. This packaging is of partially manufactured or finished goods for distribution from manufacturer to manufacturer, and to users other than retail customers.

3.7 Human readable interpretation (HRI) or in-the-clear wording: An exact, literal interpretation of the encoded Barcode data presented in a human-readable font without hyphens. Note: HRI is usually found directly under the Barcode data.

3.8 Item name (Nomenclature): The exact name and description of an item as it appears in the contract, purchase order or requisition shall be shown.

3.9 Purchase Order number (PO): A series of letters and numbers assigned to the purchase agreement between the vendor and Federal Acquisition Service (FAS).

3.10 Packing List: The packing list shall identify the contents of products contained in the transport package. DD Form 1348 may be used as a requisition request and packing list. The packing list shall contain a requisition number, order number or ticket number as appropriate to the method of sale.

**4. GENERAL REQUIREMENTS:** Marking shall be clear, legible, permanent, and in English. All required marking shall be located at least on one side or face of the package. The preferred side or face is the end panel, but any of the four faces of a carton may each display the complete marking requirements. Required marking shall be orientated in a palletized load so that it is visible to the handler. Transport packages and unit loads shall not be marked on the top or bottom of the carton. Material regulated by Federal law or regulation shall be marked in accordance with those requirements. Labels and tags shall be securely attached to the item or package when the surface will not support the necessary marking. The marking order sequence in section 4 is preferred, but not mandatory.

4.1 Marking requirements for Shipment to General Services Administration (GSA) Wholesale Distribution Facilities and Customer Supply Centers shall be as follows:

4.1.1 Unit and Intermediate Packages including commercial off the shelf packages shall be marked with the following information:

- National Stock Number (NSN), in Barcode format (without hyphens or spaces)
- NSN human readable font (with or without hyphens or spaces)
- Item name (nomenclature), see section 3.8
- Specification number (including Type and Class, as applicable)
- Quantity and unit (e.g., 10EA, 1 DZ, 4LI, 12 KT, etc.)
- Contractor's name and address (street optional), including zip code
- For extendable shelf-life items, the date of manufacture and re-inspection (month and year).
- For non-extendable shelf-life items, the date of manufacture, and the date of expiration are required.
- Lot or batch number, as applicable.
- Special marking as specified in the contract or purchase order

4.1.2 Transport Packages:

4.1.2.1 All individual Transport Packages (including those in unit Loads: shall be marked with the following information in characters at least 9 mm (3/8 inch) high. Where space does not permit this, characters smaller in size shall be used. All required information must be included in the identification information and/or shipping label. Barcode information must be capable of interpretation by a scanning device through material such as stretch wrap.

4.1.2.2 Shipping Label Information for Transport Package: shall be marked with the purchase order number (or contract number if there is no purchase order), in human readable and Barcode form.

- Purchase Order Number, Barcode (no hyphens or spaces)
- Human readable font below
- National Stock Number, Barcode (no hyphens or spaces)
- Human readable font below
- Consignor: (i.e., ship from) name and address (if different than contractors.) The consignor's commercial shipping label may be used on transport packages in lieu of marking the consignor and consignee in 9 mm characters.

. Consignee: (i.e., ship to) name and address. The consignor's commercial shipping label may be used on transport packages in lieu of marking the consignor and consignee in 9 mm characters.

- . Number of pieces
- . Weight
- . Cube

4.1.2.3 Product Identification Information:

- . NSN, Barcode (no hyphens or spaces)
- . In human readable (with or without hyphens or spaces)
- . Item name (nomenclature) see section 3.8
- . Specification number (including type and class, as applicable)
- . Quantity and unit (total number of units in the container)
- . Contractor's name and address, including zip code
- . Gross weight, preceded by "WT", and expressed in kilograms to the nearest 0.5 kg, followed in parenthesis by the weight in pounds to the nearest pound [e.g., WT 25 kg (55 LB)]
- . The Cube measurement, to be preceded by "CU", and expressed in cubic meters to the nearest 0.001 cubic meter, followed in parenthesis by the cubic feet to the nearest 0.1 cubic foot [e.g., CU 0.034 m (1.2 FT)]
- . For shelf-life items, the date of manufacture (MFD), and date of expiration (EXP) or reinspection (INSP) (month and year)
- . Lot or batch number (as applicable)
- . Special Marking as specified in the contract or purchase order

4.1.3 Each palletized or unitized load shall have two labels affixed on adjacent sides of the load with the following information:

- . Barcoded purchase order number and human readable font
- . Barcoded national stock number and human readable font
- . Consignor and consignee name, address and zip code information
- . Weight and cube of the palletized or unitized load
- . Number of transport packages in palletized or unitized load

Note: the consignor and consignee names may be omitted from each transport package when two labels applied to the palletized load have this information.

4.1.4 Transport Packages when consolidated into Unit Loads Moving in full Truckload or Carload Shipments containing one NSN: shall be marked as specified in sections 4.1.2.1 thru 4.1.2.5, except that consignor and consignee marking is not required on either transport packages or unit loads. The shipping label with the consignor and consignee information shall be located on two unit loads closest to the door of the truck or carload shipment.

4.1.5 Unique palletized load marking requirements: When determined to be in the best interest of the government the marking requirements on each transport package may be waived by the Office of Acquisition Operations. This exception to the normal marking requirements shall be coordinated with the two Distribution Centers and the responsible Supply Center Acquisition Branch. The Unique palletized load marking requirement in accordance with this document shall be included in the Item Purchase Description to take affect. Two labels affixed to the palletized load on adjacent sides shall contain the following:

- . Barcoded purchase order with human readable font
- . National Stock Number (NSN), in Barcoded form and human readable
- . Item name (nomenclature)
- . Specification number (including Type and Class, as applicable)
- . Quantity and unit (e.g., 10EA, 1 DZ, 4LI, 12 KT, etc.)
- . Contractor's name and address (street optional), including zip code
- . For extendable shelf-life items, the date of manufacture and re-inspection (month and year).
- . For non-extendable shelf-life items, the date of manufacture, and the date of expiration are required.
- . Lot or batch number, as applicable.
- . Special marking as specified in the contract or purchase order

#### 4.2 Marking for Shipment to All Other GSA Addresses, and to Other Civil Agencies:

4.2.1 Commercial Packages (commercial off the shelf products): Unit, intermediate and transport packages of commercial products shall be marked in accordance with 4.1.1 and 4.1.2. Transport packages shall be marked with requisition number in lieu of purchase order number.

4.3 Special Marking: In addition to the standard marking specified herein, special marking may be required by the contract or purchase order This may include data such as, requisition number (REQN), priority code (PRI), project code (PRO J), required delivery date (RDD), and transportation control number (TCN). The required data shall be preceded by the abbreviation shown herein.

4.4 Pictorial marking: may comply with ASTM D5445. For example: liquid items, temperature sensitive, packaging orientation, center of gravity or fragile items.

4.5 Barcoded National Stock Number (NSN) and Purchase Order Number (PON): shall be accomplished using the application of linear (Code 39) symbols in accordance with ISO/IEC 16388. Print quality, element width, and wide to narrow ratios will comply with ANSI X3.182 and MHIA MH10.8.1. Barcode: A thirteen digit National Stock Number (NSN) and two additional (Add) codes as applicable. In the absence of the NSN and Add code, the CAGE and Part Number will be used for a maximum of 15 characters. See the paragraph 2 for further requirements pertaining to the in the clear data and Barcode entries. The in the clear data and linear (Code 39) Barcode HRI shall be easily human readable. The linear (Code 39) Barcodes and the 2D (PDF417) Barcode symbol shall be easily readable by scanners.

**5. DETAILED REQUIREMENTS:** The following conversion factors apply.

MULTIPLE	SYMBOL	BY	TO OBTAIN	SYMBOL
METERS	m	3.281	FEET	ft
	m	39.37	INCHES	in
CENTIMETERS	cm	0.3937	INCHES	in
MILLIMETERS	mm	0.0394	INCHES	in
FEET	ft	0.3048	METERS	m
	ft	30.48	CENTIMETERS	cm
	ft	300.48	MILLIMETERS	mm
INCHES	in	2.54	CENTIMETERS	cm
	in	25.4	MILLIMETERS	mm
POUNDS	lb	0.45359	KILOGRAMS	kg
	lb	453.592	GRAMS	g
	lb	16	OUNCES	oz
KILOGRAMS	kg	2.20462	POUNDS	lb
LENGTH in x WIDTH in x HEIGHT in	LXWXH	multiply	CUBIC INCHES	in <sup>3</sup>
CUBIC INCHES	in <sup>3</sup>	0.0005787	CUBIC FEET	ft <sup>3</sup>
CUBIC FEET	ft <sup>3</sup>	0.0283	CUBIC METERS	m <sup>3</sup>
GALLON	gal	3.79	Liters	L

TABLE 1 MEASUREMENT CONVERSION TABLE



FIGURE 1 INNER CONTAINERS ARE NOT SUITABLE FOR SHIPMENT AS TRANSPORT PACKAGES

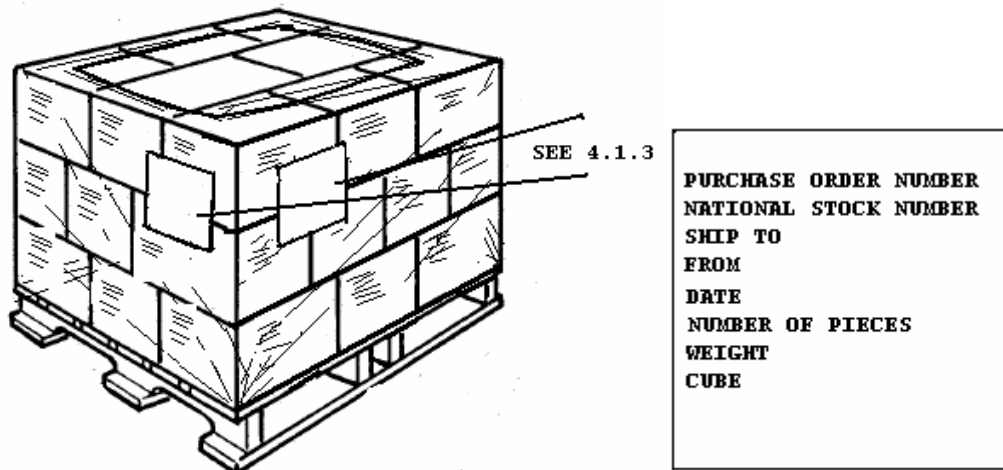


FIGURE 2 PALLETIZED LOAD LABELS

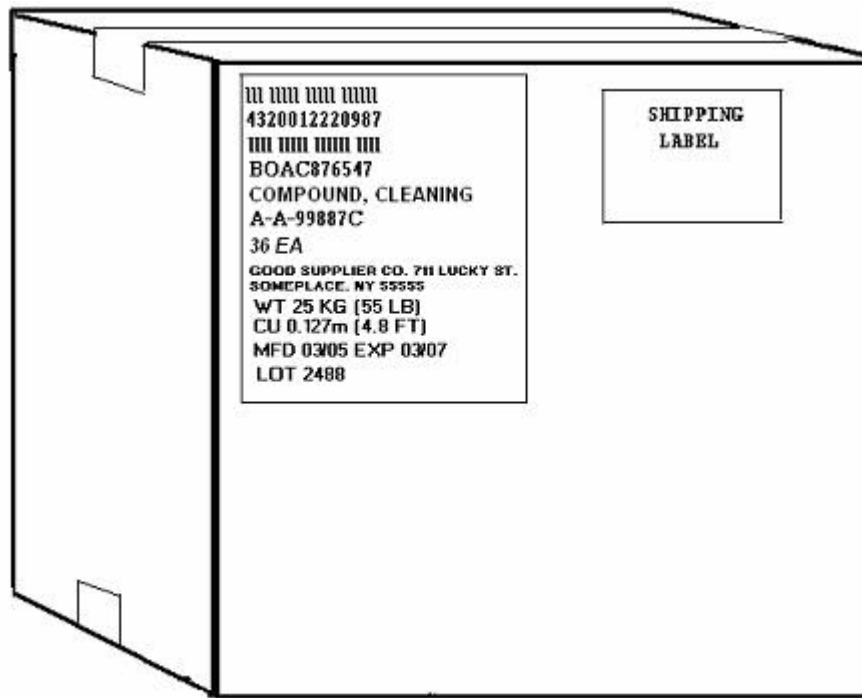


FIGURE 3 TRANSPORT PACKAGE WITH MARKING IN THE PREFERRED ORIENTATION

**6. CONCLUDING MATERIAL:** Preparing Activity: GSA: FAS(FSS)  
Military Coordinating Activity: Army - SM

Reviewing Activities: 11, 13, 99, AS, AV, CG, CM, CR3, DH, EC, GL 3, GS3,  
MC, MI, MT, NP, PT, SA, SE, SP, TM2

**PACK Project Number 2007-009**