

## **DLA PALLETIZATION REQUIREMENTS**

### **1. SCOPE**

(A) This document covers the requirements for palletization of EBS items of supply for handling, shipment, and storage

### **2. REFERENCED DOCUMENTS**

(A) The following documents form palletization requirements to the extent specified herein:

(1) Standards (Commercial):

(a) ANSI/MHIA-MH1- Pallets, Slip Sheets, and Other Bases for Unit Loads

(b) ASTM D 3951- Standard Practice for Commercial Packaging

Note: Both commercial documents are copyrighted and cannot be distributed by the government:

ANSI/MHIA MH1 may be obtained at <http://www.mhi.org/publications>

ASTM D 3951 may be purchased at <http://www.astm.org/Standards/D3951.htm>

(2) Standards (Military)

(a) MIL-STD-147- Palletized Unit Loads

(b) MIL-STD-2073-1 - Standard Practices for Military Packaging

Note: Copies of listed federal and military specifications, standards, and associated documents listed in the Department of Defense Index of Specifications and Standards [ASSIST] should be obtained from Document Automation and Production Service, 700 Robbins Avenue, Philadelphia, PA 19111-5094. They are also available on ASSIST at: <http://quicksearch.dla.mil/>.

### **3. REQUIREMENTS**

(A) Shipments of identical items packed in four or more unit, intermediate or shipping containers exceeding a total of 20 cubic feet per destination shall be palletized except when the containers are required to be skidded (Para 4 of Requirements), by contract requirements, or consist of a shipping container that exceeds the size or weight limitations for palletized loads (see ANSI MH1 Part 9, Table 9-4). Shipments packaged in accordance with ASTM D 3951 and/or MIL-STD-2073-1 shall be palletized in accordance with MIL-STD-147. Additionally, when the

total number of containers going to the same destination is 250 pounds or greater (excluding pallet), or a volume of 20 cubic feet or greater, then palletization IAW MIL-STD-147 is required. The load shall be prepared and secured in a manner that will ensure carrier acceptance and permit safe re-handling at destination. Loads shall be stable and should not exceed the size and overseas limitations of MIL-STD-147. Glued loads shall not be used. Overhang of Unit Load shall not be permitted.

(B) For Level A packing, pallets shall utilize ANSI/MHIA-MH1, Part No. MH1/9-05SW4048 pallet. The total weight of the unitized load shall not exceed 3000 lbs. evenly distributed.

(C) For Level B packing, pallets shall utilize ANSI/MHIA-MH1, Part No. MH1/9-02SW4048 pallet for unit loads less than 1500 lbs. evenly distributed. For unit loads greater than 1500 lbs. but less than 3000 lbs. evenly distributed, ANSI/MHIA-MH1, Part No. MH1/9-05SW4048 pallet shall be utilized.

(D) Residual quantities of less than the quantity required for one course of the load need not be palletized.

(E) Palletization is not required for shipping containers that are constructed on skids. Unit/Intermediate/Shipping containers, except drums, exceeding 70 pounds gross weight or 40 inches in length, may be constructed with skids. Skids shall be a minimum of 3 X 4 inch (nominal) lumber and shall be securely attached to permit multiple handlings at destination.

#### **4. SPECIALIZED REQUIREMENTS**

(A) Clothing and Textiles:

(1) Pallet loads containing more than one NSN shall be clearly marked to list all the NSNs contained in the load. No carton shall have more than one NSN. At the end of a size run, no more than one carton per NSN may be short or over the specified quantity. Said carton shall be clearly marked "short" or "over".

(B) Medical Exceptions:

(1) A single medical item having a height of 48 inches or greater: If a properly palletized load (equipment and pallet) exceeds 54 inches in height, height limitations need not be adhered to.

(2) A single medical item having dimensions exceeding the maximum pallet load length and/or width dimensions: If a single item exceeds the maximum pallet load dimensions, length and width need not be adhered to. Contact the contracting officer for additional guidance.

(3). Loading: Five-gallon tight head pails shall be loaded on pallets IAW Load Type III or IIIA of MIL-STD-147, except that a triple layer or course may be used for a total not to exceed 42 pails.

(4) Unitization: Supplies that do not lend themselves to the use of MIL-STD-147 palletization due to size, weight, configuration, etc. shall be unitized by securely

blocking, bracing, or anchoring the load on a skid base or commercial type pallet in a manner that assures safe delivery.

(C) Hazardous Materials:

(1) Unless otherwise specified in the contract or purchase order hazardous material containers, except cylinders and 55 gallon drums, shall be palletized IAW load type VI of MIL- STD-147 UTILIZING ANSI/MHIA-MH1 part number MH1/9-07SW4848 pallets. "Hazardous Materials" for the purpose of this document, means any material considered hazardous under the Department of Transportation Hazardous Material Regulations, 49 CFR part 171-79, IATA, IACO, IMDG , unless otherwise specified.

(2) Use of nonstandard commercial pallets is forbidden unless cited in the contract/purchase order. Shrink wrap is not authorized for use with Hazardous Materials.

(3) 55 gallon drums for domestic delivery shall be palletized 3 per ANSI/MHIA-MH1, Part No. MH1/9-02SW4048 pallet (1500 lbs max), ANSI/MHIA-MH1, Part No. MH1/9-03SW4048 pallet or part number MH1/9-05SW4048 pallet (3000 lbs max) IAW with load type 3a bonding method G (stretch wrap) or 4 per ANSI/MHIA-MH1, Part No. MH1/9-07SW4848 pallet IAW load type VI of MIL- STD-147 (placing an inverted wood cap under and over the load secured by metal strapping).

(4) 55 gallon drums for export delivery shall be palletized 4 per MHIA-MH1, Part No. MH1/9-07SW4848 pallet IAW load type VI of MIL-STD-147 (placing an inverted wood cap under and over the load secured by metal strapping).

(5) Cylinders for domestic delivery shall be palletized vertically IAW load type IX of MIL- STD-147 or horizontally using metal strapping IAW MIL- STD-147 bonding method D (figure 36) and notched wood spacers (storage aid #25, figure 50) to assure the stability of the load.

(6) Cylinders for export delivery shall be Palletized (vertically) IAW load type IX of MIL- STD-147.

(7) The use of stretch-wrap, shrink film or nonmetallic strapping for bonding is not authorized for "Export Shipments".