

**APPENDIX 4-A****STORAGE OF MICA***1. Description*

a. Mica is a mineral in sheet form consisting of two principal commercial varieties, namely, muscovite and phlogopite. There are three principal classifications of strategic mica (block, film, and splittings) and a number of qualities and grades. Quality refers to various physical properties, and grade denotes the size of a rectangular area which can be obtained from a sheet. Mica will be received for storage marked with special code numbers identifying the origin, type, quality, and grade. Each depot storing mica shall have a copy of the Mica Code Book (furnished by the DNSC-OL) which lists all assigned code numbers. When acquired, mica shall meet the following Purchase Specifications:

(1) Mica - Muscovite Splittings - Purchase Specification P-33-R

(2) Mica - Splittings - P-73

2. *Packaging.* Mica is usually packed in paper-lined wooden boxes of various sizes. A common size is 27 x 18 x 14 inches, containing approximately 100 pounds net and 116 pounds gross. Mica will be packaged and received in containers meeting current acquisition specifications.

*3. Marking*

a. Before shipment to permanent storage, all mica is inspected and the boxes remarked and identified by means of a special coding system which distinguishes different origins, types, qualities, and grades. Examples of these markings, which will be stenciled in black on a white background on one end of the box, are as follows:

(1) The left side of the end-face is reserved for the letters which identify the program under which the material was acquired, such as SCM or NSP; DPA or DMP on yellow bar or in a yellow triangle; or CCC on a green bar. At the present time there is no mica in storage under the CCC program. Mica that was originally acquired under the CCC program was subsequently transferred to the SCM-SUPP program. Boxes need not be remarked, but depot records will contain information as to the correct program.

(2) The mica code identifying the material as to origin, type, quality, and grade will consist of numbers or numbers and letters in four, five, or six digit combinations. The code will appear in the upper part of the space to the right of the program symbol. These are generally larger letters and numbers, 1 1/2 inches in size.

(3) Below the code will appear a box number. The number is assigned at the point of inspection and is used primarily for tally-in or tally-out purposes. These are generally 1-inch numerals prefixed by two letters.

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(4) Underneath the box number will be at least two weight marks, and sometimes three. The gross and net weights of the box will always appear, and occasionally there will be a third mark called “accepted weight.” When only two weights are recorded, the net is the accepted weight. When three weights are recorded, the net indicated is the net weight of mica in the box, but the additional “accepted weight” shows that only a part of the net was accepted as stockpile quality. The balance of the net weight in these boxes is sometimes referred to as “allowance mica,” which is the quantity not meeting the shipper’s stated quality and grade.

b. In some instances, original markings used by the supplier, such as contract number, lot number, gross and net weights, and other shipper’s marks, will appear on the side or end of the boxes. These markings are not to be obliterated.

**4. Storage**

a. Mica will be stored in a dry, sprinklered warehouse and segregated according to the program and code numbers. All boxes of mica are to be placed flat on pallets or in box pallets. Boxes shall not be stored on their sides or ends. Mica now in storage will not be rewarehoused to meet this requirement except by specific authority of the DNSC-OL.

b. In addition to segregation by program and code, phlogopite block and splittings will be segregated by mine marks as determined by the DNSC General Supply Specialist. Mica presently in storage will not be rewarehoused to meet this requirement.

c. To facilitate the taking of a physical inventory at any time by count and computation, the following methods of storage shall govern:

(1) When there is an insufficient number of boxes of one size, program, and code number to fill a bay, all such boxes shall be stored on flat pallets. A uniform number of boxes shall be placed on each pallet, except when an odd number on the top pallet of a stack completes the block.

(2) When there is not a sufficient number of boxes of one size, program, and code to fill a bay, but a sufficient number of boxes of one size, etc., to set up a stack or more than one stack, such stacks shall be set up back to back with sufficient space kept open on the outer sides of each row to permit access for establishing count.

(3) When there is not a sufficient number of boxes of one size, etc., to form a stack, box pallets shall be used. Such box pallets should be stacked in tiers and placed back to back, allowing ample space on the open side of pallets to permit access to perform count.

(4) When there are mixed sized boxes of one type and code, such mixed boxes shall be placed in the same box pallet in such a manner as will permit count.

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(5) When there are only a few boxes of a specific type and code, box pallets shall be used to their greatest capacity possible, even though they contain mica of different code numbers. These box pallets shall be placed in tiers and arranged as outlined in Item 3 above. -

(6) To permit quick identification, boxes shall be placed on or in pallets with marks facing outward.

(7) Complete description of all mica shall be indicated on a card which shall be prominently displayed and securely attached to each stack. DNSC storage sites will use the Warehouse Material Identification Card (DNSC 41) for this purpose. The forms, which are specifically designed for use with stockpile material, will be furnished to military depots upon request.

d. Main transportation aisles will be a minimum of 10 feet in width. Maximum storage height will be at least 36 inches below automatic sprinkler heads and overhead structural members (including lower chord and other roof truss members, beams, and girders, but excluding vertical supporting columns, etc.). Individual block stacks will be limited to 3,000 square feet of floor area. A minimum clearance of 24 inches will be maintained between stacks and exterior walls, fire walls, fire doors, and fire door openings. A clearance of 18 inches will be maintained between piles and heating appliances, piping, electrical wiring, and fixtures, etc. Clearance between stowage piles will be at least 4 feet except as specified for main transportation aisles.

**5. Outshipment Procedure**

a. The outshipment orders will designate type of mica, code, program, number of cases, net weight, and such additional information necessary to identify the material to be shipped.

b. Shipments will generally be made in closed rail cars and/or trucks, and special care must be exercised to assure material is loaded into clean and sound conveyances. When pallets are utilized in shipping, boxes will be strapped to the pallets to prevent movement in the conveyance.

c. The net weight of the material to be shipped will normally be to the marked net total weight shown on the cases.

d. An Outbound Storage Report, DNSC 43, shall be issued within three working days after the entire shipping order quantity has been shipped, or to cover each week's shipments, whichever comes sooner, and the respective depot Inventory Record Card(s), DNSC 46, posted accordingly. For some cases, the net accepted weight of mica in a box may be less than the actual net weight. When the box markings or depot records make such information available to the shipper, three weights will be reported on DNSC 43, Outbound Storage Report. The three weights will be gross weight, net weight of all the mica in the box, and net weight of accepted grade mica in the box.

**6. Precautions To Be Taken**

a. *Health.* None.

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b. *General.* Rough handling may cause extensive damage to mica. Proper care shall be exercised in handling and shipping mica in order to avoid damage. Precautions shall be taken to prevent shifting of mica and consequent damage from breakage and scratching.

7. *Average Storage Factor*

a 11.7 gross square feet per short ton.

FOR ADDITIONAL INFORMATION ON THIS COMMODITY REFER TO THE MATERIAL SAFETY DATA SHEET OR THE MOST RECENT PURCHASE SPECIFICATION.