

## APPENDIX 4-A

## STORAGE OF QUARTZ CRYSTALS

1. *Description.* Quartz crystals resemble “chunks” of glass and vary greatly in lustre, transparency, and color. They possess the peculiar quality of generating an electric force when pressure is applied, or changing dimensions when subjected to an electric force. Plates can be cut from them which are responsive to specified electrical frequencies and are widely used as frequency control oscillators. When acquired, Quartz Crystals shall meet Purchase Specification P-43-R2 (Current Edition).

2. *Packaging.* Quartz crystals will be packaged and received in containers meeting current acquisition specifications.

3. *Marking.* A special government code number applies to quartz crystals which indicates the weight class of crystals, grade, quality and serial number. Examples of code numbers applicable to quartz crystals are NSP-5-13F (FSS - Box Serial No.) or NSP-3-26U (FSS - Box Serial No.). These numbers may have an alphabetical prefix or suffix. The letters NSP are arranged vertically. These markings appear on one end of each box and are applied prior to shipment to the storage point. Markings elsewhere on the box should be ignored for storage purposes.

4. *Storage*

a. Crystals must be stored in sprinklered warehouse space. Quartz crystals are stored and identified in records by code numbers. Boxes of any code number should be readily available for selection with a minimum rearrangement of stacks. If the quantity of a given code number is large enough to make solid stack, it is desirable to segregate and store like codes together. If, however, the quantity to be stored is not known in advance so that storage space can be pre-planned, or if the quantity of boxes of any one code is small in number, dissimilar codes may be stored adjacently. Careful maintenance of location records by row and position in the stack is necessary. Appropriate identifying markers will be placed on rows comprising a number of buried stacks. When boxes of quartz crystals are received in which the NSP code or serial number is illegible, they must be set aside for re-identification or re-inspection. All damaged containers where contents have become commingled must be set aside for inspection and re-identification, from the DNSC-OL, prior to repair or repackaging.

b. Boxes shall be stored on base floor pallets in uniform rows and number of tiers so as to facilitate the taking of an inventory at any time by a physical count and computation. If pallets are used between tiers, a uniform number of boxes shall be placed on each pallet. Odd number of boxes are placed on the top pallet of a stack of uniform height completing the lot. By doing this, economical use of space must be given full consideration and all segregation requirements are met.

5. *Precautions To Be Taken*

a. *Health.* None.

b. *General.* Quartz crystals must be handled with extreme care to prevent breakage with resulting reduction in grade.

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6. *Average Storage Factor.* 20 square feet per short ton.

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