DLAD 4155.37 AR 702-18 NAVSUPINST 4410.56A AFJMAN 23-232 MCO 4450.13A

March 10, 2004

#### MATERIEL QUALITY STORAGE STANDARDS POLICY FOR SHELF-LIFE MATERIEL

This revision provides updated policies and information on the preparation, technical requirements, and dissemination of materiel quality storage standards required for shelf-life materiel managed or used by Department of Defense activities.

Individual inventory control point appendices have been revised. They have been removed from this publication and have been converted to electronic database formats. The appendices are located in the Shelf Life Extension System (http://www.shelflife.hq.dla.mil).

#### A. REFERENCES

1. DLAR 4155.37/AR 702-18/NAVSUPINST 4410.56/AFR 69-10/MCO 4450.13, Materiel Quality Control Storage Standards, 24 Feb 93, superseded.

2. Required and related publications are listed in enclosure 1.

#### B. PURPOSE

1. This directive prescribes uniform policies, responsibilities, and guidance for the development, preparation, publication, and maintenance of storage standards for Military Services (U.S. Army, U.S. Navy, U.S. Air Force, and U.S. Marine Corps), Defense Logistics Agency (DLA), General Services Administration (GSA), Federal Aviation Administration (FAA) and U.S. Coast Guard (USCG) managed shelf-life materiel.

2. The guidelines contained herein provide the principles for quality assurance techniques to be used when performing surveillance of shelf-life materiel in storage; determining the condition of shelf-life materiel during storage and upon shipment; and the inspection, testing, or restorative actions required to maintain and to return shelf-life stocks to a ready-forissue status.

## C. APPLICABILITY AND SCOPE

1. This directive applies to the Military Services (Active and Reserve -U.S. Army, U.S. Navy, U.S. Air Force, and U.S. Marine Corps), and the Defense Logistics Agency (DLA). The General Services Administration (GSA), the U.S. Coast Guard (USCG), and the Federal Aviation Administration (FAA) may choose to adhere to requirements contained within this directive in accordance with DoD 4140.1-R, DoD Supply Chain Materiel Management Regulation.

2. Proponent and exception authority. The proponent of this directive is the Director, DoD Shelf-life Management Program, Headquarters, Defense Logistics Agency, Fort Belvoir, VA. It is developed and maintained in

### PCN 10205650300

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited

conjunction with the Military Services, GSA, FAA, and the USCG. The proponent has the authority to approve exceptions to this directive that are consistent with controlling law and regulations. Proponents may delegate the approval authority, in writing, to personnel within the proponent agency.

3. Supplementation of this directive and establishment of command and local forms are prohibited without prior approval from Headquarters, Defense Logistics Agency, ATTN: DLA-J-37 (DoD Shelf-life Management Program Director - Stop 2533), 8725 John J. Kingman Road, Fort Belvoir, VA 22060-6221.

4. Users are invited to send comments and suggested improvements to this directive or to specific ICP appendices directly to the appropriate Service/Agency storage standard focal point as listed at <a href="http://www.shelflife.hq.dla.mil">http://www.shelflife.hq.dla.mil</a> under shelf-life POCs. After review and if approved by the Service/Agency focal point, the recommendation will be forwarded to Headquarters, Defense Logistics Agency, ATTN: DLA-J-37 (DoD Shelf-life Program Director - Stop 2533), 8725 John J. Kingman Road, Fort Belvoir, VA 22060-6221.

D. DEFINITIONS. Abbreviations, definitions, and terms used in this directive are explained in enclosure 2, glossary.

## E. POLICY

1. Inventory Control Point (ICP)/Engineering Support Activity (ESA)

a. The ICPs will establish, publish and maintain storage standards for all Type II shelf-life items of which they have IMM responsibility. At the discretion of the ICP, storage standards may also be applied to other items having peculiar storage and/or surveillance requirements. Type II shelf-life items are identified by a numeric (plus code "X"), one-position shelf-life code in Segment H of the Federal Logistics Information System (FLIS) Total Item Record.

b. Individual ICP storage standards will be prepared and published separately from this regulation in the form of appendices. In lieu of this requirement, ICPs may submit alternative printed documents (e.g., Military or Federal standards or supply bulletins) or data and information in electronic form (e.g., databases or Web sites) for authorized substitution. Requests for approval of these substitutions will be submitted to the DoD Shelf-life Program Director as listed at <a href="http://www.shelflife.hq.dla.mil">http://www.shelflife.hq.dla.mil</a> under shelflife points of contact (POC). Appendices when used will be identified in accordance with the appendix letter designations as illustrated in table 1-1.

Table 1-1				
Index of Appendices for Inventory Control Points				
APP	RIC	INVENTORY CONTROL POINT (ICP)	GEOGRAPHIC LOCATION	
U.S. ARMY				
В	AKZ	Tank-automotive and Armaments Command (TACOM)	Warren, MI	
C	A12	Soldier & Biological Chemical Command (SBCCOM)	APG, MD	
D	B14	Tank-automotive and Armaments Command	Rock Island, IL	
Е	B16	Communications-Electronics Command (CECOM)	Ft. Monmouth, NJ	
F	в17 в64	Aviation and Missile Command (AMCOM)	Redstone Arsenal, AL	
U.S. AIR FORCE				
G	FGZ	Ogden Air Logistics Center(OOALC)	Ogden, UT	
H	FHZ	Oklahoma City Air Logistics Center(OCALC)	Oklahoma City, OK	
J	FLZ	Warner Robins Air Logistics Center(WRALC)	Warner Robins, GA	
GENERAL SERVICES ADMINISTRATION				
K or a	lso	GSA General Services Administration (GSA)	Washington D.C.	
FED-ST	'D-793			
FEDERAL AVIATION ADMINISTRATION				
L	G69	Federal Aviation Administration (FAA)	Oklahoma City, OK	
U.S. MARINE CORPS				
M	MPB	Marine Corps Logistics Base Albany (MCLBA)	Albany, GA	
	172.0	U.S. NAVY		
N	N32	NAVICP-Aviation	Philadelphia, PA	
Р	N35	NAVICP-Snips	Mechanicsburg, PA	
0	DEFENSE LOGISTICS AGENCY			
Q	SOC	Defense Supply Center Columbus-Construction	DSCC COlumbus, OH	
Ð	COC	Defense Supply Center Defamond	DCCP Richmond VA	
S	SPG	Defense Supply Center Philadelphia-General &	DSCR Richmond, VA	
D	571	Industrial		
Т	S9M	Defense Supply Center Philadelphia-Medical	DSCP Philadelphia, PA	
U	S9S	Defense Supply Center Philadelphia-	DSCP Philadelphia, PA	
		Subsistence		
v	S9T	Defense Supply Center Philadelphia-Clothing	DSCP Philadelphia, PA	
		A TEXULLES	l	
W	710	U.S. COASI GUARD	Poltimoro MD	
v	ZNC	U.S. Coast Guard Supply Center-Floatronica	Brooklyn NV	
v		U.S. Coast Guard Supply Center Aristics	BLOOKLYH, NI Elizaboth City, NC	
-	ZQC	VACANT	EIIZADELII CILY, NC	
T 0 7		VACANI		
1,0,2				

c. ICP appendices will contain the following information as described immediately hereafter and will be organized in the following appendix sections with corresponding titles.

<u>Section I</u> - GENERAL INFORMATION. This section of the appendix will contain general instructions and administrative information pertinent to the ICP that is preparing the storage standard appendix. For efficiency, it should not duplicate information already contained within this basic directive. The following paragraphs are mandatory within section I of an appendix and will be prepared in the sequence as follows:

(a) <u>Purpose</u>. State functional objectives, commodities covered, limitations, etc.

(b) <u>Scope</u>. State organizational applicability and exceptions, procedures for deviation requests, etc.

(c) <u>Administrative Guidance</u>. List any definitions and acronyms not included in this basic regulation, forms and publication requirements, reference documents, reporting procedures, etc.

(d) <u>Technical Guidance</u>. List approved laboratory testing facilities and contact information; test sample submission and lotting procedures; inthe-clear inspection and testing procedures; test equipment training available; inspector certification requirements; item preservation, packing, or packaging; safety considerations; special instructions, etc.

(e) <u>Recommended Changes</u>. List the organizational mailing address, telephone number, and email address to which recommended changes of the appendix should be forwarded.

Section II - NONSTANDARDIZED DATA ELEMENT CODE DEFINITIONS. This section of the appendix will contain definitions for nonstandardized data element codes, i.e., codes having definitions which are different from those standardized data element codes defined next within paragraph Elc Section III or in the glossary of this directive. The following statement will also appear at the beginning of this section of the appendix: "NOTE: THIS SECTION CONTAINS NONSTANDARDIZED DATA ELEMENT CODE DEFINITIONS AS DEFINED BY THE PREPARING ICP OF THIS APPENDIX. DEFINITIONS FOR STANDARDIZED DATA ELEMENTS CODES WHICH ARECOMMON TO ALL DOD ACTIVITES ARE CONTAINED IN DLAD 4155.37/AR 702-18/NAVSUPINST 4410.56A/AFJMAN 23-232/MCO 4450.13A, MATERIEL QUALITY STORAGE STANDARDS POLICY FOR SHELF-LIFE MATERIEL."

Section III - NATIONAL STOCK NUMBER LISTING. This section of the appendix will contain a listing of individual NSNs with the following required data elements, when applicable, for each NSN. A sample format for an NSN record is illustrated in table 1-2:

(a) **Source of Supply (SOS) Code**. A three-position, alphanumeric, standardized code that identifies the ICP responsible for the preparation, maintenance, and update of the specific storage standard. The SOS code is maintained in the FLIS NSN master record.

(b) **Characteristics Code**. A nonstandardized code used to alert inspection personnel to characteristics that require special attention, and to establish the elements to be inspected for the purpose of determining the serviceability of materiel. <u>Code definitions will be defined in Section II</u> of the storage standard appendix applicable to the materiel.

(c) **Inspection Type Code**. A one-position, standardized code to specify whether a simple visual examination (code "V"), certified laboratory testing (code "L"), or machine testing (code "M") is necessary for accurate assessment of materiel serviceability at the end of its shelf-life period.

Table 1-2			
Sample Format - Storage Standard Data Elements			
National Stock Number*	1010-00-391-2522		
Approved Item Name*	Cover Assembly, Rack		
Source of Supply Code**	S9C		
Characteristics Code(s)**	A1, B2, C4, F5, etc		
Inspection Type Code**	L		
Test Requirements Code(s)**	AA1		
Inspection Level Code(s)**	S1		
Acceptable Quality Level*	2.5%		
Shelf-Life Code*	9		
First Inspection Month**	51		
Reinspection Months**	24		
Reinspection Limit**	2		
Technical Publications**	SB 700-XX		
Item Type Storage Code**	A		

\* See enclosure 2, glossary, for definition.

\*\* See definitions (a) through (j).

(d) **Test Requirements Code**. A nonstandardized code that defines testing requirements necessary for accurate assessment of materiel serviceability at the end of its shelf-life period. <u>Code definitions will be defined in Section II of the storage standard appendix applicable to the materiel</u>.

(e) **Inspection Level Code**. A two-position, standardized code selected from ASQ Z1.4 that determines the relationship between the lot or batch size and the sample size. The inspection level to be used for any peculiar requirements will be prescribed by the responsible authority. Three inspection levels, G1, G2, and G3, are given for general use. Four additional special levels, S1, S2, S3, and S4, are also available and may be used where relatively small sample sizes are necessary and large sampling risks can or must be tolerated. In the designation of inspection levels S1 though S4, care must be exercised to avoid Acceptable Quality Levels (AQL) inconsistent with these inspection levels.

(f) **First Inspection Month**. A multi-position numeric field used to identify the time (in months) when the first inspection is due as governed by item criticality and storage environment. It will be computed from the date of manufacture, date of cure, date of assembly, or date of pack (apply one as appropriate). If the date of manufacture, date of cure, date of assembly, or date of assembly, or date of pack is not known, the first inspection will be performed immediately.

(g) **Reinspection Mont** A multi-position numeric field used to identify the time (in months) when an item is scheduled for reinspection if still in storage as governed by item criticality and storage environment. It will be computed from the date of last inspection.

(h) **Reinspection Limit**. A one-position numeric field to depict the number of reinspections, in addition to the first inspection, permitted as governed by item criticality and storage environment, e.g., the number "1"

indicates one reinspection, "2" indicates two reinspections, "0" indicates no reinspections, and the letter "U" indicates unlimited reinspections.

(i) **Technical Publications**. A multi-position field which specifies applicable publications which outline additional procedures not identified in the storage standard coding structure, e.g., Military/Federal Specification, Technical Order (TO), Supply Bulletin (SB), Technical Instruction (TI), Technical Manual (TM), Maintenance Instruction (MI), Supply Instruction (SI), etc.

(j) **Item Type Storage Code.** A nonstandardized code which identifies the storage environment that is necessary for realizing the initial, assigned shelf-life of the item. <u>Code definitions will be defined in Section II of</u> the storage standard appendix applicable to the materiel.

d. For newly established items of supply, ICPs will request and receive storage standards from the applicable materiel developer upon assumption of IMM responsibilities. For items of supply undergoing transfer of item management, the gaining ICP will request the losing ICP to provide previously developed storage standards. If there are no previously developed storage standards available, the ICP will develop them by obtaining assistance as needed from the applicable ESA.

e. The ICPs will prepare storage standards by obtaining information from:

- (1) specifications and drawings
- (2) technical publications and references
- (3) Federal cataloging system
- (4) deteriorative characteristics of the item
- (5) manufacturers of the item
- (6) ICP technical expertise
- (7) historical quality assurance records of the item

2. Storage Activity (SA) Storage standards will be used by all DoD SAs in order to perform care of Applies in storage (COSIS), inspections, tests, and restorative actions for specific shelf-life NSNs.

a. Storage standard criteria for specific shelf-life materiel applies only if that materiel is preserved, shipped, and stored under conditions as specified by the materiel's managing ICP.

b. If materiel is preserved, shipped, or stored in conditions other than those specified, the inspection frequency will be increased accordingly.

3. Benefits. The benefits of establishing storage standards include:

a. Precluding adverse mission impact of extendible shelf-life items on the part of user activities. This may occur by not having adequate storage standards which prescribe the criteria required for accurate assessment of materiel serviceability and which may result in deficient materiel being unknowingly issued to requisitioners.

b. Precluding unnecessary disposal of extendible shelf-life items by storage activities, which most often occurs when materiel inspection criteria has not been developed or is not readily available.

c. Providing consistency among the Military Services, DLA, GSA, FAA, and USCG on how items should be inspected.

d. Providing immediate access, update, addition, and deletion of storage standard criteria.

e. Ensuring that for items of supply undergoing transfer of item management, the gaining ICP has visibility with regard to whether the transferred materiel requires specific inspection requirements.

F. RESPONSIBILITY

1. The Director, Defense Logistics Agency shall:

a. Establish policies, administer, and provide guidance for the DoD storage standards program in accordance with the responsibilities assigned in DoD Directive 5105.22.

b. Direct implementation of DoD storage standard policies in a uniform manner throughout the Department of Defense; and monitor and evaluate the effectiveness of the DoD storage standards program.

c. Develop storage standards for Type II (extendible) shelf-life items which DLA has integrated materiel management (IMM) responsibility and when storage standards have not been previously developed.

d. Assure the publication and timely revision of storage standards for all Type II (extendible) shelf-life items for which DLA has IMM responsibility.

e. Provide previously developed storage standards to gaining Military Service or GSA ICPs upon logistics reassignment of IMM responsibility.

f. Maintain a liaison with the Military Services, GSA, FAA and USCG, to assist in resolving issues related to the DoD storage standards program.

g. Ensure compliance with the provisions of this directive within DLA.

2. Secretaries of the Military Departments shall:

a. Develop storage standards for Type II (extendible) shelf-life items for which their respective Military Service has material development responsibility; or IMM responsibility and when storage standards have not been previously developed.

b. Assure the publication and timely revision of storage standards for all Type II (extendible) shelf-life items for which the respective Military Service has IMM responsibility.

c. Provide previously developed storage standards to gaining DLA ICPs or GSA upon logistics reassignment of IMM responsibility.

d. Implement DoD storage standard policies in a uniform manner; and monitor and evaluate the effectiveness of the storage standards program within their respective Services.

e. Maintain a liaison with the other Military Services, DLA, GSA, FAA, and the USCG in resolving issues related to the storage standards program.

f. Ensure compliance with the provisions of this directive within their respective Services.

3. Commandant, United States Coast Guard, and at their discretion, the Administrators, GSA and FAA will:

a. Develop storage standards for Type II (extendible) shelf-life items for which they have IMM responsibility and when storage standards had not been previously developed.

b. Assure the publication and timely revision of storage standards for all Type II (extendible) shelf-life items for which they have IMM responsibility.

c. Implement DoD storage standard policies in a uniform manner; and monitor and evaluate the effectiveness of the storage standards program within their respective organizations.

d. Maintain a liaison with the Military Services and DLA in resolving issues related to the storage standards program.

G. EFFECTIVE DATE. This publication is effective immediately. This publication is available in electronic media and is intended for: Army - Command levels C, D, and E for Active Army, Army National Guard and United States Army Reserve. Air Force - Air Force Materiel Command Air Logistics Centers. Marine Corps - <u>DISTRIBUTION STATEMENT A</u>: Approved for public release; distribution is unlimited. Navy.

H. INFORMATION REQUIREMENTS. (Reserved for future use.)

By Order of the Director, Defense Logistics Agency, and the Secretaries of the Army, the Navy, the Air Force, and the Marine Corps:

/s/

ELLA E. STUDER Director DLA Support Services

/s/

JOEL B. HUDSON Administrative Assistant to the Secretary of the Army

/s/

MICHAEL E. ZETTLER, Lt Gen, USAF DCS/Installations & Logistics

/s/

J.D. McCarthy Rear Admiral, SC, USN Commander Naval Supply Systems Command

/s/

RICHARD L. KELLY Lieutenant General, U.S. Marines Corps Deputy Commandant Installations and Logistics

COORDINATION: HQ DLA, Army, Air Force, Navy, Marine Corps, Coast Guard, GSA, FAA

Enclosure 1 DLAD 4155.37

# References Section I

Required Publications

DoD 4140.27-M, Shelf-Life Management Manual. (Cited in section II of enclosure 2.)

DoD Directive 5105.22, Defense Logistics Agency. (Cited in paragraph Fla.)

FED-STD-793, Depot Supply Storage Standards. (Cited in paragraph E, table 1-1.)

American Society for Quality (ASQ) Z1.4, Sampling Procedures and Tables for Inspection by Attributes. (Cited in paragraph Elc.)

## Section II Related Publications

DoD Directive 4140.1, Materiel Management Policy.

DoD 4000.25-1-S1, MILSTRIP Routing Identifier and Distribution Codes.

DoD 4140.1-R, DoD Supply Chain Materiel Management Regulation.

DoD 4145.19-R-1, Storage and Materials Handling.

DoD 4140.26-M, Defense Integrated Materiel Management Manual for Consumable Items.

AR 310-50, Authorized Abbreviations, Brevity Codes

AR 700-15/NAVSUPINST 4030.28/AFMAN 24-206/MCO 4030.33/DLAD 4145.7, Packaging of Materiel.

TM 38-400/NAVSUP PUB 572/AFJMAN 23-210/MCO 4450.14/DLAM 4145.12, Joint Service Manual for Storage and Materials Handling.

TM 38-410/NAVSUP PUB 573/AFJMAN 23-209/MCO 4450.12/DLAM 4145.11, Storage and Handling of Hazardous Material.

AR 715-13/NAVSUPINST 4120.30/AFI 21-408/MCO 4000.18C/DLAR 3200.1, Engineering Support for Items Supplied by Defense Logistics Agency and General Services Administration.

MIL-STD-1916, DoD Preferred Methods for Acceptance of Product.

MIL-HDBK-1916, Companion Document to MIL-STD-1916.

Enclosure 2 DLAD 4155.37

# Glossary Section I Abbreviations

- AQL Acceptable Quality Level
- ASQ American Society for Quality
- COSIS Care of Supplies in Storage
- DLA Defense Logistics Agency
- ESA Engineering Support Activity
- FAA Federal Aviation Administration
- FLIS Federal Logistics Information System
- FSC Federal Supply Classification
- FSG Federal Supply Group
- GSA General Services Administration
- ICP Inventory Control Point
- IMM Integrated Materiel Management
- MI Maintenance Instruction
- NIIN National Item Identification Number
- NSN National Stock Number
- SA Storage Activity
- SI Supply Instruction
- SOS Source of Supply
- TI Technical Instruction
- TO Technical Order
- TM Technical Manual
- USCG United States Coast Guard

## Section II Definitions/Terms

**Acceptable Quality Level (AQL).** The maximum percentage or proportion of variant units in a lot or batch that, for the purposes of acceptance sampling, can be considered satisfactory as a process average.

**Accreditation.** Certification by a duly recognized body of the facilities, capability, objectivity, competence, and integrity of an entity to specifically provide a service or perform an operation.

**<u>Characteristic</u>**. A physical, chemical, visual, functional, or any other identifiable property of an item.

**Date Assembled.** The date items or parts are assembled into components, assemblies, sets, kits, or outfits (CASKO), or the date various CASKOs are assembled into a larger unit.

**Date Cured**. The date the item or materiel was altered industrially. The process is sometimes referred to as vulcanizing or cross-linking, as to vulcanize (rubber) or to treat (synthetic elastomers) with heat or chemicals to make them infusible. The cure date is indicated by the calendar quarter followed by the calendar year (e.g., 4Q2001 = fourth quarter, 2001). The day on which an item is cured shall be the last day of the quarter. In the example above the cure day would be 31 December 2001.

**Date Manufactured.** The date an item, materiel, or commodity was fabricated, processed, produced, or formed for use. For drugs, chemicals and biologicals, the date of manufacture for products submitted to the Food and Drug Administration (FDA) for certification prior to release is the date of the official certification notice. For products manufactured under license of the Agricultural Research Service (ARS), the date of manufacture shall not be shown for medical items having expiration dates.

**Date Packed (used for subsistence only).** The date on which the product was packaged in the primary unit container, regardless of dates of secondary packing, shipping, or additional processing.

**Defect.** Any nonconformance of an item with specified requirements. <u>Critical</u> <u>defects</u> result in hazardous or unsafe conditions for individuals using, maintaining, or depending upon the product; or prevent performance of the tactical function of a major end item. <u>Major defects</u> result in failure or reduce the usability of an item for its intended purpose. <u>Minor defects</u> have minimal effect on the effective use of an item.

**Engineering Support Activity (ESA).** The military activity designated to provide engineering support including development of technical data and engineering criteria to DLA or GSA.

**Expiration Date**. The date by which nonextendible (Type I) shelf-life items should be discarded as no longer suitable for issue or use.

**Expiration Dating Period (Potency Period)**. For drugs, chemicals, and biologicals, the period beyond which the product cannot be expected to yield its specific results or to retain its required potency.

**Federal Supply Group/Class (FSG/FSC).** A uniform supply classification system designed to serve the commodity classification needs of supply operations within the Federal Government. It divides the universe of items of supply into broad commodity groups; each Federal supply classification group being further subdivided into classes. The Federal supply classification utilizes a four-digit coding structure. The first two digits of the code number identify the group; the second two digits of the code number identify the classes within each. A series of four numerals at the beginning of the NSN that designates the general commodity classification of the item of supply; e.g., FSC 6505, Pharmaceuticals; FSC 9150, Chemicals; etc.

**Inspection**. The physical process of determining compliance with established control measures. The activity such as measuring, examining, or gauging one or more characteristics of an item and comparing results with specified requirements in order to establish whether conformity is achieved for each characteristic.

**Inspection Level.** An indication of the relative sample size for a given amount of an item.

**Inspection/Test Date**. The date by which extendible (Type II) shelf-life items should be subjected to inspection, certified laboratory test, or restoration.

**Integrated Materiel Management (IMM)**. The exercise of total DoD-level management responsibility for a federal supply group or class, commodity, or item for a single agency. It normally includes computation of requirements, funding, budgeting, storing, issuing, cataloging, standardizing, and procuring functions.

**Inventory Control Point (ICP).** An organizational unit or activity within a DoD supply system which is assigned the primary responsibility for the materiel management of a group of items either for a particular Service/Agency or for DoD as a whole. Materiel inventory management includes cataloging direction, requirements computation, procurement direction, distribution management, disposal direction, and rebuild direction. May sometimes be referred to as the primary inventory control activity (PICA).

**Laboratory Testing.** A scientific procedure applied in a controlled manner by academically trained personnel in a facility using proper laboratory instruments to determine a physical or chemical change by which a substance may be detected or properties ascertained. The physical measurement to determine conformance of an item to specified tolerances.

Lot or Batch. A definite quantity of an item accumulated under conditions that are considered uniform for sampling purposes.

**Machine Testing.** A performed test utilizing specified and certified Defense Chemical Test Equipment to evaluate assets during storage and usage for the purpose of assessing serviceability and maintainability during the cyclic shelf life management process. **Materiel Developer**. The organization responsible for research and development (R&D), and production validation of an item.

**Preservation.** The processes and procedures used to protect materiel against corrosion, deterioration, and physical damage during shipment, handling, and storage. As applicable, preservation includes cleaning, drying, application of preservative, wrapping, cushioning, containers (unit and intermediate) and complete identification markings up to but not including the exterior shipping container.

**Principal Items.** End items and replacement assemblies of such importance that management techniques require centralized individual item management throughout the supply system.

Quality Status List (QSL). A DoD-recognized listing of accumulated test results from testing accomplished by certified laboratories for the purpose of determining whether shelf-life extensions of Type II shelf-life materiel are warranted. The listing is maintained by identifying NSN, contract number, and lot/batch number and can be used as an authority for extending existing inventories with the same identification as long as storage standard requirements have been adhered to.

**<u>Sample</u>**. One or more items randomly drawn from a lot or batch, the total number of which are considered the sample size.

**Sensitive Items.** Items have a potential ready sale or use in illicit markets and especially likely to be pilfered.

**Service Life.** A general term used to quantify the average or standard life expectancy of an item or equipment while in use. When a shelf-life item is unpacked and introduced to mission requirements, installed into intended application, or merely left in storage, placed in pre-expended bins, or held as bench stock, shelf-life management stops and service life begins.

**Shelf-Life**. The total period of time beginning with the date of manufacture, date of cure (for elastomeric and rubber products only), date of assembly, or date of pack (subsistence only), and terminated by the date by which an item must be used (expiration date) or subjected to inspection, test, restoration, or disposal action; or after inspection/laboratory test/restorative action that an item may remain in the combined wholesale (including manufacture's) and retail storage systems and still be suitable for issue or use by the end user. Shelf-life is not to be confused with service-life (see definition).

**Shelf-Life Code.** A one-position code, defined in DoD 4140.27-M and DoD 4100.39-M (Table 50, Volume 10), that cross-references to the period of allowed storage time expressed in months/quarters assigned to a shelf-life item. See appendix E of DoD 4140.27-M.

CODE "0" (ZERO) -- NSN/NIIN is not a shelf-life item. CODE "ALPHA" Character (except Code "X") -- TYPE I non-extendible item. CODE "NUMERIC" Character (plus Code "X") -- TYPE II extendible item.

**Shelf-Life Item.** An item of supply possessing deteriorative or unstable characteristics to the degree that a storage time period must be assigned to ensure that it will perform satisfactorily in service. All shelf-life items are classified as one of the following two types:

TYPE I - An individual item of supply, which is determined through an evaluation of technical test data and/or actual experience, to be an item with a definite non-extendible period of shelf-life. One exception is Type I medical shelf-life items (FSC 6505), which may be extended if they have been accepted into and passed testing for extension through the DoD/FDA Shelf-Life Extension Program (SLEP).

TYPE II - An individual item of supply having an assigned shelf-life time period that may be extended after completion of visual inspection/certified laboratory test, and/or restorative action.

**Storage Activity (SA)**. The organizational element of a distribution system, which is assigned custodial responsibility for the physical handling of materiel during its receipt, storage, and issue.

**Storage Standard.** Mandatory instructions for the inspection, laboratory testing, and/or restoration of items in storage. These standards provide guidance on storage criteria and time-phasing of inspections during the storage cycle to determine the materiel serviceability and degree of deterioration, which has occurred.

**Unit (primary) Package.** The first tie, wrap, or container applied to a specific item in any quantity, or a group of specific items that together constitute a single stock number.

<u>Visual Examination</u>. An element of inspection consisting of generally nondestructive investigation and conducted without the use of special laboratory equipment. It primarily includes evaluation using sight and may include sound, taste, smell, or touch assessments.