

Chapter 3

MANAGING HAZARDOUS MATERIALS

1. HAZARDOUS MATERIAL MANAGEMENT PROGRAM

ORARNG HM management is intended to control procurement, use, and storage of HM in order to prevent pollution from being generated, minimize the hazards of chemical use to the health of employees, and reduce the amount and cost of waste disposal. Compliance with applicable environmental regulations dealing with HM is required. HM is regulated by environmental law, occupation and health law, transportation law and the Uniform Fire Code.

2. PROCURING HAZARDOUS MATERIALS

WARNING!

ORARNG policy does not allow you to use or store non-ORARNG procured hazardous materials

a. To ensure all applicable laws are followed, the OMS, OMSS, UTES, COUTES, AASF#1, AASF#2, CSMS and State Maintenance are the only authorized facilities to purchase Class II and Class III POL products, to include supported units fifteen day supply of POL. Supply Sergeants will coordinate with the appropriate supporting OMS to receive their material. Materials will be stored at their supporting OMS, except for small quantities that are being used at the facility in support of day-to-day operations. Any exceptions to this will be coordinated through the supporting shop and AGI-Environmental.

b. Prior to purchasing a HM check with other activities to see if they have excess HM on hand that can be obtained before ordering new product. An electronic option is available in Microsoft Outlook Global Address List, select the name HAZWASTEOR.

3. USING MATERIAL SAFETY DATA SHEETS (MSDS)/HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

a. To manage your MSDS/HMIS

STEP 1. Obtain an MSDS/HMIS for each HM on hand from the manufacturer or from the HMIS. The MSDS/HMIS must be specific to the product's NSN and CAGE number (manufacturer's code). HMIS must match proper manufacturer. Other sources to obtain an MSDS are:

- GSA MSDS Request Line (206) 436-2193
- www.msdssearch.com
- www.clsco.com/customerservice/msds.htm
- www.msdonline.com/
- www.siri.org
- www.dlis.dla.mil/hmis/

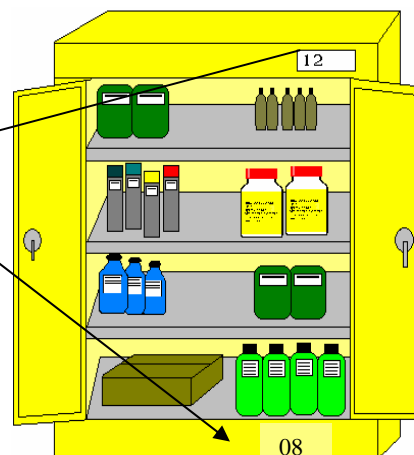
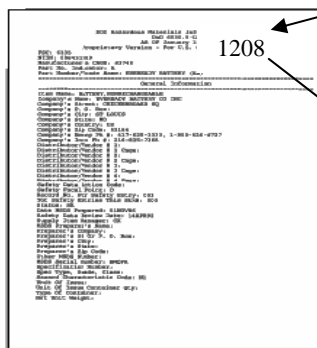
- the supply system
- the State Hazardous Waste Manager
- Installing HMIS from Network Neighborhood Or41200agilib

STEP 2. Assign a unique product identification number to each HM IAW Chapter 2, and write this number on:

- The MSDS/HMIS for that HM

example: product identification number is 1208

12 = locker number
08 = product number



STEP 3. In each HM storage area, there will be a sign indicating where the MSDS/HMIS folders/binders are kept.

STEP 4. Create a central MSDS binder:

STEP 4-1. Place a copy of all MSDS/HMIS for all HMs in use and stored by the activity in a binder by the unique product identification number or other similar method.

STEP 4-2. Complete an inventory of your HMs and place it in the front of the binder.

STEP 4-3. Place the binder in a central location available to all employees during all shifts.

STEP 5 Remove MSDSs from the binder for HMs no longer being used.



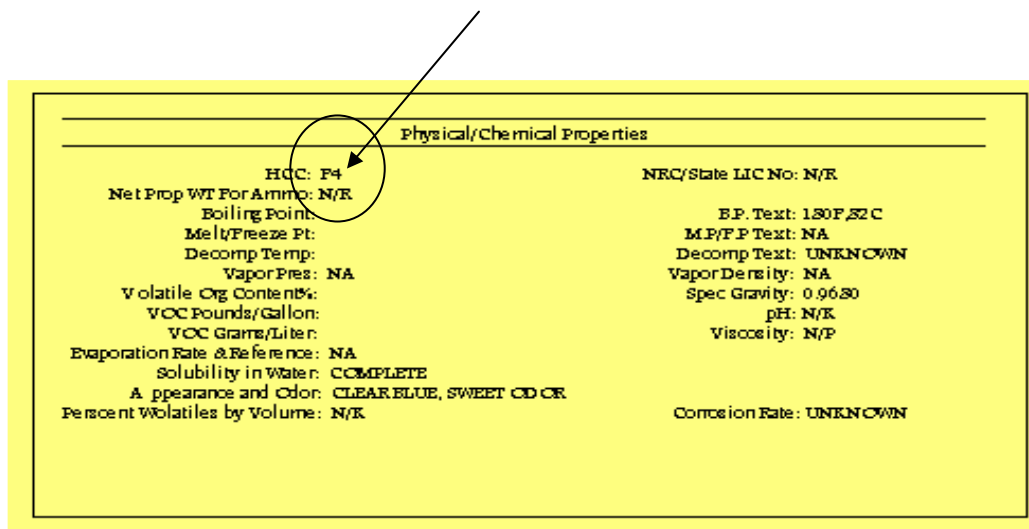
4. DETERMINING HAZARDOUS MATERIAL COMPATIBILITY

a. To help you determine what HM can be stored together, the DOD created the **H**azardous **C**hemical **C**ompatibilty System (HCC). For more information, see joint publication DLAI4145.11/TM38-410/NAVSUP PUB 573/AFJMAN 23-209/MCO 4450.12A, *Storage and Handling of Hazardous Materials*.

b. The HCC is designed to work with MSDSs generated from the HMIS; however, it will also work for most non-HMIS generated MSDSs.

5. MSDSs GENERATED FROM HMIS

STEP 1. Find the Hazard Characteristic Code (HCC) in the Section titled: Physical/Chemical Properties in the MSDS.



| Physical/Chemical Properties | |
|--|-------------------------|
| HCC: F4 | NEC/State LIC No: N/R |
| Net Prop WT For Ammo: N/R | B.P. Text: 180F/82C |
| Boiling Point: | M.P./F.P Text: NA |
| Melt/Freeze Pt: | Decomp Text: UNKNOWN |
| Decomp Temp: | Vapor Density: NA |
| Vapor Pres: NA | Spec Gravity: 0.9680 |
| Volatile Org. Content%: | pH: N/K |
| VOC Pounds/Gallon: | Viscosity: N/P |
| VOC Grams/Liter: | |
| Evaporation Rate & Reference: NA | |
| Solubility in Water: COMPLETE | |
| Appearance and Odor: CLEAR, BLUE, SWEET ODOR | |
| Percent Volatiles by Volume: N/K | Corrosion Rate: UNKNOWN |

STEP 2. Use the Storage Segregation Matrix to determine incompatibility. The storage segregation matrix consists of four essential elements:

- The HCC
- The HCC group name.
- The primary segregation required by Hazard Storage Area Code (HSAC).
- The secondary segregation required (if any) within the primary storage area.

Primary segregation types listed in the matrix are listed below. It includes the ten Hazard Storage Area Codes (HSAC):

| | | | |
|---|-------------|---|------------------------------|
| A | Radioactive | G | Gas, Compressed |
| C | Corrosive | L | Low Hazard (General Purpose) |
| D | Oxidizer | P | Peroxide, Organic |
| E | Explosive | R | Reactive |
| F | Flammable | T | Poison |

6. STORAGE SEGREGATION MATRIX

There are sixty-three HCCs associated with the HSACs. Once a HM has been assigned a permanent or temporary HCC, use the matrix on the following page to determine storage requirements:

STEP 1. Locate the HCC in Column (1). The HCC is given in the MSDS section "Physical/Chemical Properties" section

STEP 2. Determine the primary storage site in Column (3). Indicated by an asterick* and defined above. This will determine the proper storage location.

STEP 3. Determine if secondary segregation is required Column (4).

For example, HCC F6 is a corrosive acid that is flammable (column 2). It will be assigned an HSAC of F (column 3) and placed in a Flammable Storage Area. F7 is a corrosive alkali that is flammable. It will also be assigned a code of F and placed in a Flammable Storage Area. However, these two HCCs are incompatible (see Note L) with each other and must be separated horizontally by at least one four-foot wide aisle.

Vertical separation may also be required; to ensure that incompatible products do not leak and contact one another.

STEP 4. Check the matrix notes to see if the HM has any unique and unusual storage problems. These products may require secondary segregation within the primary storage area or may present such unusual problems that they must be completely segregated from all other products.

STORAGE SEGREGATION MATRIX

| HCC (1) | Hazard Characteristics Group Name (2) | PRIMARY SEGREGATION BY HAZARD STORAGE AREA CODE (HSAC) (3) | | | | | | | | | | SECONDARY SEGREGATION (4) |
|------------|--|--|---|---|---|---|---|---|---|---|---|---------------------------------|
| | | A | C | D | E | F | G | L | P | R | T | |
| A1 | Radioactive, Licensed | * | | | | | | | | | | Note A |
| A2 | Radioactive, License Exempt | * | | | | | | | | | | Note A |
| A3 | Radioactive, License Exempt, Authorized | * | | | | | | | | | | Note A |
| B1 | Alkali, Corrosive Inorganic | | * | | | | | | | | | Note B |
| B2 | Alkali, Corrosive Organic | | * | | | | | | | | | Note C |
| B3 | Alkali, Low Risk | | | | | | | * | | | | Note F |
| C1 | Acid, Corrosive Inorganic | | * | | | | | | | | | Note D |
| C2 | Acid, Corrosive Organic | | * | | | | | | | | | Note E |
| C3 | Acid, Low Risk | | | | | | | * | | | | Note F |
| C4 | Acid, Corrosive and Oxidizer, Inorganic | | * | | | | | | | | | Note D |
| C5 | Acid, Corrosive and Oxidizer, Organic | | * | | | | | | | | | Note E |
| D1 | Oxidizer | | | * | | | | | | | | None |
| D2 | Oxidizer and Poison | | | * | | | | | | | | Note G |
| D3 | Oxidizer and Corrosive Acidic | | | * | | | | | | | | Note G |
| D4 | Oxidizer and Corrosive Alkali | | | * | | | | | | | | Note G |
| E1 | Explosive, Military | | | | * | | | | | | | Note H |
| E2 | Explosive, Low Risk | | | | | | | * | | | | Note A |
| F1 | Flammable Liquid DOT PG I, OSHA 1A | | | | | * | | | | | | Note J |
| F2 | Flammable Liquid DOT PG II, OSHA 1B | | | | | * | | | | | | Note J |
| F3 | Flammable Liquid DOT PG III, OSHA 1C | | | | | * | | | | | | Note J |
| F4 | Flammable Liquid DOT PG III, OSHA II | | | | | * | | | | | | Note J |
| F5 | Flammable Liquid and Poison | | | | | * | | | | | | Note L |
| F6 | Flammable Liquid & Corrosive, Acidic | | | | | * | | | | | | Note L |
| F7 | Flammable Liquid & Corrosive, Alkali | | | | | * | | | | | | Note L |
| F8 | Flammable Solid | | | | | * | | | | | | Note K |
| G1 | Gas, Poison (Nonflammable) | | | | | | * | | | | | Note M |
| G2 | Gas, Flammable | | | | | | * | | | | | Note N |
| G3 | Gas, Nonflammable | | | | | | * | | | | | Note P |
| G4 | Gas, Nonflammable, Oxidizer | | | | | | * | | | | | Note R |
| G5 | Gas, Nonflammable Corrosive | | | | | | * | | | | | Note S |
| G6 | Gas, Poison, Corrosive (Nonflammable) | | | | | | * | | | | | Note T |
| G7 | Gas, poison, Oxidizer (Nonflammable) | | | | | | * | | | | | Note U |
| G8 | Gas, Poison, Flammable | | | | | | * | | | | | Note V |
| G9 | Gas, Poison, Corrosive, Oxidizer (Nonflammable) | | | | | | * | | | | | Note W |

| HCC (1) | Hazard Characteristics Group Name (2) | PRIMARY SEGREGATION BY HAZARD STORAGE AREA CODE (HSAC) (3) | | | | | | | | | | SECONDARY SEGREGATION (4) | |
|------------|---|--|---|---|---|---|---|---|---|---|---|---------------------------------|---------|
| | | A | C | D | E | F | G | L | P | R | T | | |
| K1 | Infectious Substance | | | | | | | | | | | * | Note X |
| K2 | Cytotoxic Drugs | | | | | | | | | | | * | Note Y |
| M1 | Magnetized Material | | | | | | | * | | | | | None |
| N1 | Not Regulated as Hazardous | | | | | | | * | | | | | None |
| P1 | Peroxide, Organic DOT Regulated | | | | | | | | * | | | | None |
| P2 | Peroxide, Organic (Low Risk) | | | | | | | | * | | | | None |
| R1 | Reactive Chemical, Flammable | | | | | | | | | * | | | Note Z |
| R2 | Water Reactive Chemical | | | | | | | | | * | | | Note AA |
| T1 | DOT Poison - Inhalation Hazard | | | | | | | | | | * | | None |
| T2 | UN Poison, Packing Group I | | | | | | | | | | * | | None |
| T3 | UN Poison, Packing Group II | | | | | | | | | | * | | None |
| T4 | UN Poison, Packing Group III | | | | | | | * | | | | | Note BB |
| T5 | Pesticide, Low Risk | | | | | | | * | | | | | None |
| T6 | Health Hazard | | | | | | | * | | | | | None |
| T7 | Carcinogen (OSHA, NTP, IARC) | | | | | | | | | | * | | Note CC |
| V1 | Miscellaneous Hazardous Materials - Class 9 | | | | | | | * | | | | | None |
| V2 | Aerosol, Nonflammable | | | | | * | | | | | | | Note EE |
| V3 | Aerosol, Flammable | | | | | * | | | | | | | Note EE |
| V4 | DOT Combustible Liquid, OSHA IIIA | | | | | * | | | | | | | None |
| V5 | Hi-Flash Point Liquids, OSHA IIIB | | | | | | | * | | | | | None |
| V6 | Petroleum Products | | | | | | | * | | | | | None |
| V7 | Environmental Hazard | | | | | | | * | | | | | None |
| Z1 | Article Containing Asbestos | | | | | | | * | | | | | None |
| Z2 | Article Containing Mercury | | | | | | | * | | | | | None |
| Z3 | Article Containing (PCB) | | | | | | | * | | | | | None |
| Z4 | Article, Battery, Lead Acid, Nonspillable | | | | | | | * | | | | | None |
| Z5 | Article, Battery, Nickel Cadmium, Nonspillable | | | | | | | * | | | | | None |
| Z6 | Article, Battery, Lithium | | | | | | | | | * | | | Note DD |
| Z7 | Article, Battery, Dry Cell | | | | | | | * | | | | | None |

DEFINITION OF NOTES

Note A - Security Storage - must be well ventilated with limited access.

Note B - Inorganic Alkali Storage - store away from acids by at least one four foot aisle width and away from organic alkalis by at least one four foot aisle width.

Note C - Organic Alkali Storage - store away from acids by at least one four foot aisle width and away from inorganic alkalis by at least one four foot aisle width.

Note D - Inorganic Acid Storage - store away from alkalis (caustic) by at least one four-foot aisle width. Separate from other acids with subsidiary risk labels by at least one four-foot aisle width.

Note E - *Organic Acid Storage* - store away from alkalis (caustic) by at least one four-foot aisle width. Separate from other acids with subsidiary risk labels by at least one four-foot aisle width.

Note F - Further separate into Acid and Alkali Storage within the low hazard storage area to keep potentially incompatible products from mixing.

Note G - Separate from other oxidizers and oxidizers with secondary hazards by at least one four foot aisle width.

Note H - *Magazine Storage*.

Note J - Segregate into flammable liquid storage separate from flammable solids by at least one four-foot aisle width.

Note K - Segregate into flammable solid storage separate from flammable liquids by at least one four-foot aisle width.

Note L - Separate from other flammables and flammables with secondary hazards by at least one four foot aisle width.

Note M - Further segregate into Poison Gas storage within the compressed gas area.

Note N - Further segregate into Flammable Gas storage within compressed gas area.

Note P - Further segregate into Nonflammable Gas storage within compressed gas area.

Note R - Further segregate into Oxidizer Gas within the Nonflammable Gas storage that is within the compressed gas area.

Note S - Further segregate into Corrosive Gas within the Nonflammable Gas storage that is within the compressed gas area.

Note T - Further segregate into Corrosive Gas within the Poison Gas storage that is within the compressed gas area.

Note U - Further segregate into Oxidizer Gas within the Poison Gas storage that is within the compressed gas area.

Note V - Further segregate into Flammable Gas within the Poison Gas storage that is within the compressed gas area.

Note W - Further segregate into Corrosive and Oxidizer Gas within the Poison Gas storage that is within the compressed gas area.

Note X - Further segregate into Biomedical storage within the Poison Storage area.

Note Y - Further segregate into Medical Security storage within the Poison Storage area.

Note Z - Further segregate into a Spontaneously Combustible storage within the Reactive Storage area.

Note AA - Should not store in areas protected with water sprinkler system. Fire protection should be non-water based.

Note BB - Store away from food.

Note CC - Further segregation within Poison Storage area may be necessary if secondary hazards exist (i.e. flammable, corrosive, etc)

Note DD - Separate from other products within the Reactive Storage area.

Note EE - Store aerosols from flammables by placing in separate room or barrier such as floor to ceiling wire mesh, chain link fence, etc. to protect personnel from aerosols that can become self-propelled projectiles.

7. OTHER MSDSs

For non-HMIS MSDSs, the HCCs will probably not be available. For these items, look on the container for either a Department of Transportation (DOT) Label or a Precautionary Label.

If you find a DOT Label:

STEP 1. Go to the table - DOT Transportation Labels.

STEP 2. Find your label.

STEP 3. Follow the recommended storage requirements.



DOT TRANSPORTATION LABELS

| DOT Label | Interim HCC | Recommended Storage Area | |
|-----------------------------|--------------------|--------------------------|---|
| | | Primary | Secondary |
| Explosive 1.1 | E1 | Explosive | Magazine |
| Explosive 1.2 | E1 | Explosive | Magazine |
| Explosive 1.3 | E1 | Explosive | Magazine |
| Explosive 1.4 | E2 | Explosive | Security |
| Explosive 1.5 | E2 | Explosive | Security |
| Explosive 1.6 | E2 | Explosive | Security |
| Poison Gas | G1 | Compressed Gas | Poison Gas Cylinder |
| Flammable Gas (cylinder) | G2 | Compressed Gas | Flammable Gas Cylinder |
| Non-Flammable Gas | G3 | Compressed Gas | Nonflammable Gas Cylinder |
| Flammable Liquid | F1-F4 | Flammable | Flammable Liquid |
| Flammable Solid | F8 | Flammable | Flammable Solid |
| Spontaneously Combustible | R1 | Reactive | Spontaneously Combustible |
| Dangerous When Wet | R2 | Reactive | Dangerous When Wet, No water sprinklers |
| Oxidizer | D1 | Oxidizer | None required |
| Organic Peroxide | P1 | Peroxide Organic | None required |
| Poison | T2 | Poison | None required |
| Harmful keep away from food | T4 | Low Hazard | Away from food |
| Infectious Substance | K1 | Poison | Biomedical |
| Radioactive I | A1 | Radioactive | Security |
| Radioactive II | A1 | Radioactive | Security |
| Radioactive III | A1 | Radioactive | Security |
| Corrosive | C1,C2,C4,C5(acid)* | Corrosive | Acid pH<6 |
| Corrosive | B1,B2 (alkali)* | Corrosive | Alkali pH>8 |
| Class 9 | V1 | Low Hazard | None required |
| Magnetized Material | M1 | General Purpose | None required |

*Corrosive material is either an acid or alkali, use HMIS to get a technical determination from the MSDS.

If you find a Precautionary Label on the back of your container:

STEP 1. Go to the table - **Precautionary Labels** - on the following page.

STEP 2. Match the label with the Signal Word and Statement of Hazard in the first two columns.

STEP 3. Follow the recommended storage requirements.

SAMPLE PRECAUTIONARY LABELS



PRECAUTIONARY LABELS

| Signal Word | Examples of Statement of Hazard | Suggested Temporary HCC | Recommended Primary Storage Area | Recommended Secondary Storage Area |
|-------------|--|-------------------------|----------------------------------|------------------------------------|
| DANGER! | May be fatal if swallowed | T2 | Poison | None required |
| WARNING! | Harmful if swallowed | T3 | Poison | None required |
| WARNING! | Harmful if swallowed | T4 | Low hazard | Away from food |
| DANGER! | May be fatal if absorbed through skin | T2 | Poison | None required |
| WARNING! | Harmful if absorbed through skin | T6 | Low Hazard* | None required |
| DANGER! | Causes (severe)** burns | C1,C2, C4,C5 | Corrosive | Acid |
| DANGER! | Causes (severe)** burns | B1, B2 | Corrosive | Alkali |
| DANGER | Extremely Flammable | F1 | Flammable | Flammable liquid |
| WARNING! | Flammable | F2,F3 | Flammable | Flammable liquid |
| WARNING! | Flammable | F8 | Flammable | Flammable solid |
| CAUTION! | Combustible | F4 | Flammable | Flammable liquid |
| CAUTION! | Combustible | V4 | Flammable | None required |
| DANGER! | Extremely flammable, catches fire if exposed to air | R1 | Reactive | Spontaneously Combustible |
| DANGER! | Strong oxidizer. Contact with other materials may cause fire | D1 | Oxidizer | None required |
| DANGER! | May be fatal if inhaled | T1 | Poison | None required |
| WARNING! | Harmful if inhaled | T2 | Poison | None required |
| WARNING! | May cause allergic respiratory reaction | T6 | Low Hazard | None required |
| CAUTION! | (VAPOR GAS)** reduces oxygen available for breathing | T6 | Low Hazard* | None required |
| WARNING! | Causes eye irritation | T6,C3,C4 | Low Hazard* | None required |
| WARNING! | Causes eye irritation | T6,C3,C4 | Low Hazard* | None required |
| WARNING! | Causes irritation | T6,C3,C4 | Low Hazard* | None required |
| WARNING! | May cause allergic skin reaction | T6,C3,C4 | Low Hazard* | None required |

Please note that "None required" means no additional storage requirements.

* Material bearing precautionary label text will not be assigned a Low Hazard (General Purpose) location without notification of and approval by the installation Physical Science or Safety and Health Office.

**Enter proper term as appropriate.

If you cannot find any labels or your product is not listed in the tables, you can

- Check TM 38-410 for additional compatibility tables
- Call the EPS at (503) 584-3862

8. STOCKING HAZARDOUS MATERIALS

Reference: Joint Service Manual DLAI 4145.11/TM 38-410/NAVSUP PUB 573/AFJMAN 23-209/ MCO 4450.12A, *Storage and Handling of Hazardous Materials/Uniform Fire Code with Oregon Amendments.*

WARNING!

DO NOT store tools or personal items in any HM storage location.

DO NOT store combustible materials, such as cardboard, paper, or rags with flammable HMs.

DO NOT store flammable or reactive HM within 50 feet of the property boundary.

DO NOT store HM in trailers and vehicles, without secondary containment.
DO NOT store HM in personal wall lockers, near floor drains, or in areas with high foot or vehicle traffic
DO NOT use wood to construct additional or replacement shelving..

Whether checking in new products or maintaining current stock, the EPOC/Supply Sergeant and State Maintenance Workers must properly store HM to minimize hazards to personnel and property.

The primary steps in stocking HM are listed below:

STEP 1. Obtain all MSDSs and check that *every* container, bottle, can, box, etc. on-hand at your activity is properly labeled with the

- product name
- any warnings of physical or health hazard listed on the MSDS. HMIS provides a label with all the appropriate information

Label any HMs that do not have a readable label. It is preferred that you maintain the original manufacturer's label. However, if the original label is missing or damaged, use the type of label shown below:

Chemical Name: CLEANING COMPOUND RIFLE BORE

NSN #: 6850-00-224-6656

OSHA WARNING; CAUSES SKIN IRRITATION

If the material is transferred to a different container, label the new container.

STEP 2. Use the procedures in the Determining Hazardous Material Compatibility section of this chapter to determine storage requirements.

STEP 3. Select the appropriate type of storage location for your HMs,

- For *small quantities* of commonly used HM, use storage cabinets.
- For *large quantities* of HM, use HAZMAT building with built-in secondary containment, storage rooms, warehouses, or storage racks.

STEP 4. Place the HM in the designated location and update the inventory sheet.

STEP 5. Place MSDSs for each HM in the central MSDS binder:

STEP 6. Place the inventory form:

For cabinets, place the inventory form in a plastic sleeve on the outside of the cabinet. Place a sign showing the location of the MSDSs on the outside of the cabinet.

For storage rooms, warehouses, and racks, place the inventory form in a plastic sleeve located near the storage area.

STEP 7. Rotate containers so that those HMs nearing expiration are placed in front. Remember, FIRST IN, FIRST OUT (FIFO).

9. USING THE DOD SHELF-LIFE PROGRAM

Shelf-life is the total period of time an item may remain in the storage system and still remain suitable for issue. It begins with the date of manufacture, cure assemble, pack, or inspect/test/restorative action. A few key points to remember about the shelf-life program are listed below:

- HMs purchased locally **that** do not have an expiration date are not shelf-life items and can be used indefinitely or until the item becomes unserviceable.
- If an item has no shelf-life markings, you can use FEDLOG Army Master Data File at <http://www.shelflife.hq.dla.mil> to determine if an item is a shelf-life or nonshelf-life item:

STEP 1. Enter the National Stock Number (NSN)

STEP 2. Highlight the information in the SLC column and click the right mouse button.

FEDLOG HELP PICTURE

9150-00-889-3522

| fedlog help | | | |
|-------------|------------|--------|------|
| CODE | SHELF-LIFE | PERIOD | TYPE |
| 6 | 24 Months | | II |

If an item is not a shelf-life item, you can use it indefinitely or until it wears out.

12. SHELF-LIFE MATERIALS

a. Type I Materials

(1) Type I materials are required to be marked with the expiration date as well as the date manufactured, date cured, date assembled, or date packed (apply one as appropriate). Containers of Type I material have an alphabetical shelf-life code. These materials are NOT extendible. DOD policy requires that Type I HMs be used or disposed of within 30 days of the expiration date. One exception is Type I medical items, which may be extended if they have been accepted as candidates for DOD/DDA Shelf-Life Extension Program.

(2) See chapters 5 and 6 for management and disposal instructions.

b. Type II Materials

(1) Type II materials are required to be marked with the inspection/test date as well as the date manufactured, date cured, date assembled, or date packed (apply one as appropriate). Containers of Type II materials have a numeric shelf-life code. These materials can be extended through laboratory testing, Quality Status List (QSL) or visual inspection.

13. HOW TO EXTEND SHELF LIFE MATERIAL

STEP 1. Visually inspect the containers for rust, severe dents, punctures, or other signs of mismanagement. From the container label, find the Product Name, NSN, Date Manufactured, and Batch #.

- If containers are in good condition, they are eligible for extension. Continue to STEP 2.
- If they are not in good condition, process them for disposal IAW chapter 6.

STEP 2. For DLA items, check the QSL. For non-DLA items, skip to STEP 5.

The QSL provides laboratory testing data for DLA HMs only. It is located at www.shelflife.hq.dla.mil. You must have a user name and password to access this program. Click on the Extension Program option than click on QSL.

STEP 3. Enter the item's NSN (13 digits) and click QUERY.

STEP 4. Match the Contract Number and/or the Lot/Batch number located on the container with one of the entries on the screen.

- If the item is listed, skip to STEP 7.
- If the item is not listed, continue to STEP 5.

STEP 5. Items not listed on the QSL may be found on the Material Quality Control Storage Standard (MQCSS). The MQCSS provides the following information:

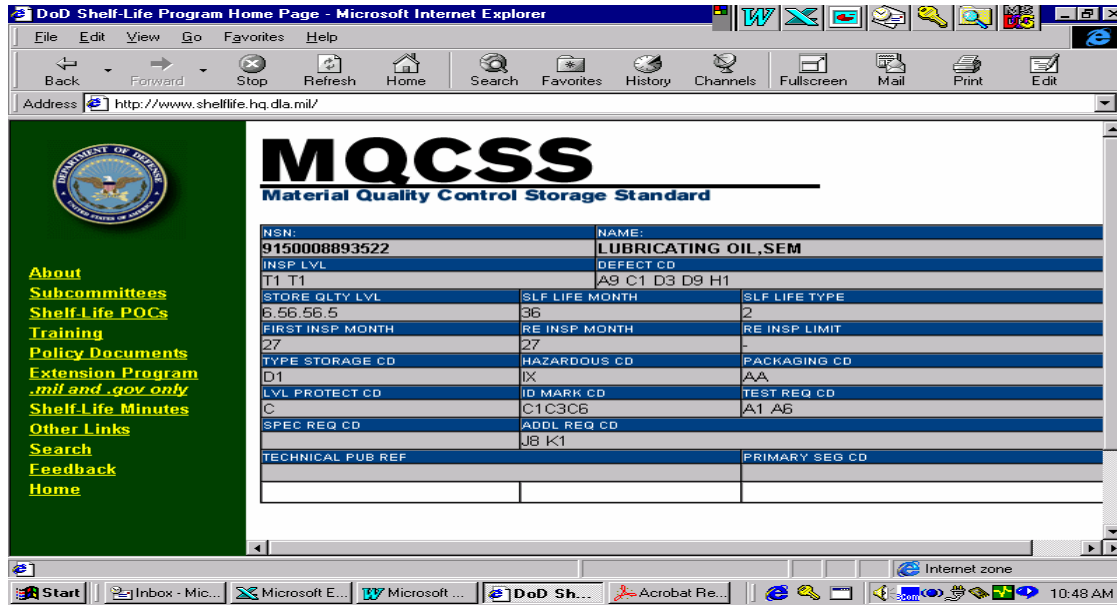
- SLF LIFE MONTH - shelf-life time limits
- SLF LIFE TYPE - Type I or Type II
- FIRST INSP MONTH - the first inspection month from the time of delivery
- RE INSP MONTH - the next inspection month
- RE INSP LIMIT - how many times an item can be extended

The MQCSS is located at www.shelflife.hq.dla.mil. [Click on search.](#)

STEP 6. Select ALL in the Table column, enter the item's NSN in the appropriate column, and click FIND.

STEP 7. If the item can be extended, use the data to either complete a Shelf Life Extension Form (DD Form 2477-2) and attach it to the container, or mark each container with the following information, if not already present:

- National Stock Number
- Lot/Batch Number
- Date Tested (day visually extended or QSL date)
- Next inspection/test date
- Authority (QSL, MQCSS, laboratory name)
- Initials of person who inspected and extended item



| QUALITY STATUS LIST | | | | | | | | | |
|---------------------|-----------------|-----------|------|---------------|-----------|----------|----------------|----------|------------------|
| NSN | CONTRACT NUMBER | LOT/BATCH | NOUN | SPECIFICATION | LAST TEST | TEST DUE | CONDITION CODE | ISSUE TO | SOURCE OF SUPPLY |
| 9150008893522 | DLA40091C5228 | SC03 | | MIL-L-46000 | 091999 | 092001 | A | ALL | S9G |
| 9150008893522 | SP045094C0871 | V101 | | MIL-L-46000 | 081998 | 082000 | A | ALL | S9G |
| 9150008893522 | SP045098MCB73 | 818 | | MIL-L-46000 | 101999 | 102001 | A | ALL | S9G |

SHELF-LIFE EXTENSION NOTICE

PER DoD 4140.27-M, CONTAINERS REQUIRE RE-MARKING WITH EXTENDED SHELF-LIFE DATA. UNITS OF ISSUE REQUIRE RE-MARKING UPON OPENING CONTAINER.

NSN: _____

CONTRACT NUMBER: _____

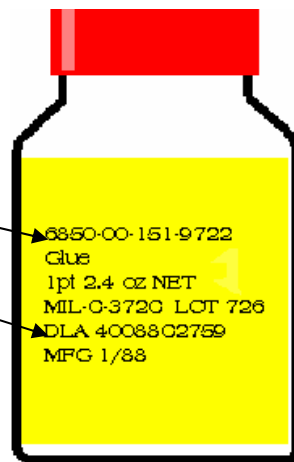
LOT/BATCH NUMBER: _____

DATE TESTED: _____

NEXT INSP/TEST DATE: _____

AUTHORITY: _____
(QSL, MQCSS, OTHER)

INSPECTED BY: _____
(ACTIVITY AND INSPECTOR'S NAME OR NUMBER)



DD FORM 2477-2, MAR 1999

The Shelf-Life Extension Notice is located on the shelf-life website.

STEP 8. After you complete the label and attach it to the container, you can place the item back into service.

You must use, extend, or dispose of Type II chemicals within 90 days of their expiration date. If the HM is not useful or cannot be extended for any reason, manage and dispose of it IAW Chapters 7 and 8.

14. ADDITIONAL INFORMATION

Contact the Environmental Protection Specialist at (503) 584-3862 or the Hazardous Materials Identifier at (503) 557-5294 for additional assistance.

(THIS PAGE INTENTIONALLY LEFT BLANK)