

Chapter 12

Hazardous Material (HM)/Hazard Communication (HAZCOM)

1. Purpose. The purpose is to provide guidance for the safe use of hazardous materials (HM), and provide guidance for OSHA's Hazardous Communication (HAZCOM) standard for MCAS Cherry Point per reference (d). This chapter establishes a program to ensure that all HM used, stored, or shipped aboard this installation are identified and evaluated. The hazard information will be provided to all employees who may be exposed to such materials. The program also establishes compliance with reference (d), the Occupational Safety and Health Standard for HAZCOM, by outlining a comprehensive plan which incorporates labeling requirements for HM, Safety Data Sheets (SDS), inventory list of HM, information on hazardous non-routine task, training and information, management responsibilities and record keeping.

2. Applicability and Scope. This chapter applies to all personnel who handle, transport, store, use, or dispose of HM. All personnel shall handle HM in a manner that safeguards personnel, property, and the environment. The necessity to use hazardous and potentially HMs requires effective application of procedures, equipment, and barriers to prevent overexposure and provide protection for exposed personnel and property. Materials or waste products should be considered hazardous if container labels, Material Safety Data Sheets (MSDS), or SDS include precautions for handling, storage, or use (e.g., corrosive, explosive, flammable, oxidizer, poison, danger, do not mix with acids) or meets the definition of HM. Prior to working with HM, personnel must receive HAZCOM training that complies with reference (d).

3. Supervisors of personnel conducting operations with HM shall:

a. Ensure each work center is inspected and an inventory is developed of all HM on hand. The inventory shall include all open-purchase, government stock items, and miscellaneous cleaning materials and updated at least annually or when significant changes occur. Mishaps involving HM and exposure to hazardous chemicals shall be reported to the appropriate Safety Office.

b. Examine all work processes and materials with the intent of substituting HM with less hazardous substances whenever possible.

c. Ensure MSDSs/SDSs are readily available to anyone who uses HM, and employees are trained on the use of the HM before being allowed to use any hazardous product/chemical, supervisors will also ensure that such chemicals are on the Authorized User List (AUL).

d. Ensure all HMs are maintained in an approved and properly labeled container. If any material is transferred to a different or smaller container it must be labeled with the following:

- (1) What the hazard is, i.e. flammable, inhalation, or irritant.
- (2) Material name and manufacturer
- (3) Shelf life type and date.

(4) Pictograms required under the Global Harmonizing System (GHS)

4. Hazard Communication (HAZCOM)

a. Material Safety Data Sheet (MSDS) or Safety Data Sheets (SDS)

(1) Each department or section is responsible for obtaining MSDSs/SDSs for HM used aboard MCAS Cherry Point and will maintain a reference library (may be electronic) of MSDS/SDS. The reference library shall be accessible to employees at all times.

(2) Work center supervisors shall ensure work areas maintain and have readily available to workers MSDSs/SDS of all hazardous materials used in the work center.

b. Labels and Warnings. Supervisors are responsible for ensuring HM is properly stored in work areas. Safety personnel will perform routine inspections to ensure HMs are properly labeled and used properly.

c. Training

(1) Personnel who come in contact with hazardous chemicals shall receive training on HM and precautionary measures needed for protection against potential hazards.

(2) Supervisors shall inform new personnel of the HAZCOM/GHS Program and schedule job-specific training before the employee is allowed to start work.

(3) Supervisors may obtain assistance in developing specific hazard training information from their Safety Office.

(4) Training is necessary each time a new hazard is introduced into the work area, but not necessarily linked to a new chemical. For example, if a new solvent is brought into the workplace and poses a hazard similar to an existing chemical for which training has already been performed, then training is not necessary. However, if the new solvent poses a new/different hazard that has not been addressed in previous training, training on the new hazard is required.

(5) HAZCOM training shall emphasize the following

(a) A summary of the OSHA HAZCOM/GHS standard

(b) Job-specific HM, chemical properties of the materials (including visual appearance and odor), and methods used to detect the presence or release of hazardous chemicals.

(c) Physical and health hazards associated with the potential exposure to workplace chemicals.

(d) Procedures to protect against hazards (e.g., PPE, work practices, emergency procedures, etc.).

(e) Hazardous chemical spill, leak, and disposal procedures.

(f) The location and availability of the written HAZCOM program, including the MSDSs/SDSs, content comprehension, and how to obtain/use appropriate hazard information.

(6) Providing personnel with a MSDS/SDS to read does not satisfy training requirements. Training is to be a forum for explaining not only hazards associated with chemicals in the workplace but also providing the opportunity for personnel to ask questions to ensure they understand the information presented.

(7) Document training in personnel training folders and send a copy of the training roster to the TSD, Building 4335.

(8) Workplace non-routine tasks

(a) Supervisors planning non-routine tasks shall ensure personnel are trained and equipped to the same extent, as those required for routine tasks prior to initiation of the scheduled work.

(b) The installation Safety Office can aid the supervisors; developing and documenting non-routine HM training.

d. Contractor Employers and Employees. Supervisors are responsible for ensuring contractor employers and employees adhere to the policies of reference (d).

e. Supervisors will implement and maintain at each workplace a written HAZCOM Plan/SOP containing the following elements (If using this chapter as a HAZCOM plan, this chapter must be posted in the workplace):

(1) A list of chemicals, MSDS/SDSs, and HM SOPs.

(2) A plan detailing how the requirements for labeling and other forms of warning, MSDS/SDSs and employee information, and training are going to be met in the workplace.

(3) Personnel responsible for the following must be appointed in writing:

(a) Initial and on-going HAZCOM training.

(b) Labeling of in-shop containers.

(c) Labeling of any shipped containers.

(d) Obtaining and maintaining MSDSs.

(4) Procedures to review and update label information when necessary. SOPs do not have to be lengthy or complicated. They are intended to comply with the HAZCOM program and assure that all requirements will be met.

5. Lithium Batteries

a. Explosion. Lithium batteries provide greatly increased shelf life and specific energy over lead acid or Nickel Cadmium (NiCad) batteries. Lithium batteries contain much higher energy content, sometimes in

pressurized cells. Because these pressurized cells can rupture, under no circumstances should the battery be deliberately opened, crushed, punctured, disassembled, or mutilated. These batteries should also not be heated or incinerated as overheating may produce internal pressure exceeding their venting capacity, causing them to explode. Primary (non-rechargeable) lithium batteries shall never be recharged. Such action could cause venting, rupturing, and fire.

b. Fire. Lithium is a reactive metal that burns extremely hot when ignited and is difficult to extinguish without proper training and equipment.

c. Toxic Gases. Lithium batteries will release toxic gases if they vent. These gases are highly corrosive and may injure personnel at concentrations as low as 10 parts per million (PPM) in ambient air (equivalent to a one-second inhalation).

d. Chemical Burn. Lithium batteries will release toxic chemicals if they leak, vent, or rupture from internal over-pressure due to short-circuiting, voltage reversal, or heat. These chemicals are highly corrosive and may cause grave injury to personnel. When handling batteries that have leaked, vented, or ruptured, use personal protective equipment (e.g., appropriate chemical resistant gloves).

6. Lithium Battery Storage Requirements

a. Lithium batteries suitable for use shall be stored in command-approved storage facilities or areas. Only lithium batteries will be stored in these facilities or areas. Charging of batteries is not authorized in the storage area. The criteria for a lithium battery storage facility or area include:

- (1) Ease of access for emergency response equipment;
- (2) Distance from other structures;
- (3) Inaccessibility to unauthorized personnel; and

(4) Distance from canals or ditches that could allow heavy metal to be released during a fire to enter bodies of water.

b. Lithium batteries suitable for use shall not be stored in the same stack as magnesium or lead acid batteries. New lithium batteries will be stored separately from "used" batteries that remain suitable for use. All batteries will be stored at least two inches from facility walls and have at least two inches between stacks to promote air circulation for cooling. Stacks will be no higher than three boxes high. All batteries will be protected from crushing, puncturing, or short-circuiting by storing them in the original or equivalent packaging. All batteries will be inspected daily for evidence of leakage, excessive heat, or exposure to water.

c. Lithium batteries suitable for use may become unstable at temperatures greater than 130° F. Thermometers will be placed within each battery storage facility or area to monitor the temperature control. Should the temperature exceed 130° F, the installation safety manager (ISM) or unit safety officer shall be notified.

d. Lithium batteries shall not be exposed to direct sunlight or water during storage or while discharging.

e. If personnel suspect a lithium battery is venting (e.g., noxious or irritating odor, hissing sound, smoke, or flames), all personnel shall immediately leave the battery storage facility or area and contact the fire department. No one, other than properly trained and equipped emergency response personnel, shall reenter the battery storage facility or area. An SDS/MSDS for each lithium battery type in storage shall be available at the battery storage facility or area for emergency response personnel.

f. Appropriate fire suppression equipment shall be readily accessible at the battery storage facility or area. This and any other fire equipment on site will be inspected as required by the fire department.

g. Signs shall be placed on all four sides of each battery storage facility or area. These signs will prohibit open flames, eating, drinking, and smoking. Eating, drinking, and smoking in or around a battery storage facility or area is prohibited due to the risk of contaminating food or drink. Each battery storage area will be marked to warn emergency service personnel of lithium battery contents.

h. Units shall inspect battery storage facilities and areas at least monthly to assess their serviceability.

7. LEAD SAFETY PROGRAM

a. Lead has long been recognized as a health hazard and may lead to damage of the nervous system, blood-forming organs, kidneys and reproductive system. In recognition of the serious health hazards associated with and numerous sources of potential lead exposure, the Marine Corps and OSHA has established strict controls limiting occupational exposures.

b. Personnel shall adhere to guidance provided in references (d), (g) and (u) when performing any tasks involving lead (firing range operations, painting and paint removal, hot work, etc.) These references establish a compliance program that includes engineering and work practices controls (including administrative controls) to reduce and maintain personnel exposure to lead below the Permissible Exposure Limit (PEL).

c. To comply with the above standards and ensure proper exposure control, all projects involving lead and lead paint remediation shall be reviewed by the Station Safety Lead Program Manager for Marine Corps and OSHA compliance.