

**Palm Beach State College**  
*Florida's First Public Community College*



**CHEMICAL HYGIENE PLAN**

**2010**

# PALM BEACH STATE COLLEGE

## CHEMICAL HYGIENE PLAN

2010

### TABLE OF CONTENTS

Purpose.....	3
1. Guidelines for working with laboratory chemicals.....	4
2. Laboratory Safety, Chemical Storage and Inventory.....	5
A Safety Equipment.....	5
B Personal Protective Equipment.....	5
C Chemical Storage.....	5
D Chemical Inventory and Labeling.....	6
3. Housekeeping and Maintenance.....	6
A Cleaning.....	6
B Maintenance.....	6
4. Material Safety Data Sheets (MSDS).....	6
5. Waste Disposal.....	7
6. Outside Contractors.....	7
7. Spills and Accidents.....	7
8. Basic Rules and Procedures for Working with Chemicals.....	8
9. Training.....	9
A Initial Awareness and Training.....	9
B Annual Training.....	9
10. Records.....	10
APPENDIX A.....	<b>Error! Bookmark not defined.</b>

**PALM BEACH STATE COLLEGE  
CHEMICAL HYGIENE PLAN**

**Purpose**

- A. The purpose of the Palm Beach State College Chemical Hygiene Plan is to provide guidance on the handling of chemicals in compliance with the Federal OSHA Occupational Exposure to Hazardous Chemicals Standard (29 CFR 1910.1450). The procedures described are those generally applicable to the safe handling of chemicals. Actual procedures shall be based on the specific hazards of the chemicals in use.
  
- B. Procedures for investigation of possible over exposure to chemicals or alleged health effects resulting from chemical exposures, including methods for medical evaluation and/or consultation.
  
- C. Criteria for implementation of control measures to reduce employee exposure to hazardous chemicals and special control measures to be implemented prior to handling extremely hazardous chemicals.
  
- D. Methods of compliance as they apply to Material Safety Data Sheets (MSDS). Which will include the acquiring, maintenance and availability of **MSDS**. Employee training both initial and annual will be outlined in the plan.

**1. Guidelines for working with laboratory chemicals**

- A. Institute a Chemical Hygiene Program which is available to all persons involved in the Science programs
- B. Follow posted laboratory rules and procedures
- C. Minimize all chemical exposures by using a working fume hood whenever possible
- D. Provide adequate ventilation where fume hoods are not available
- E. Acquire and maintain appropriate chemical labeling system

## **2. Laboratory Safety, Chemical Storage and Inventory**

### **A Safety Equipment**

1. All chemistry laboratories are equipped with working fume hoods, eyewash stations, fire extinguishers, fire alarms, fire blankets, first aid kits, chemical spill control equipment and automatic shut off switches for gas and electric.
2. All chemistry laboratory areas have emergency communication equipment
3. All chemistry laboratories have access to MSDS for chemicals used in that laboratory.

### **B Personal Protective Equipment**

1. Each program participant is responsible for obtaining federally regulated eye protection.
2. Each chemistry laboratory is equipped with laboratory aprons and vinyl gloves when required.
3. Where required, appropriate respiratory protection will be provided.

### **C Chemical Storage**

1. The designated chemical storage facility is equipped with a fire alarm, appropriate sprinkler system, non sparking lights and switches, appropriate fire extinguishing system, various spill control equipment and separate mechanical ventilation system. The room is inspected weekly.
2. Various acids, caustics, solvents and chemical wastes are stored in separate areas, according to their chemical properties.

## D **Chemical Inventory and Labeling**

1. The Science Department Specialist will be responsible for keeping an annual chemical inventory for their department.
2. Chemical container labeling will be the responsibility of the Science Department Specialist

## 3. **Housekeeping and Maintenance**

### A **Cleaning**

1. Daily upkeep of the laboratories is maintained through the Science Department Specialist office.
2. Routine cleaning of the floors is done through the Palm Beach State College Facilities Department.

### B **Maintenance**

The Science Department Specialist routinely inspects eyewash fountains and safety showers as part of the preventative maintenance program.

## 4. **Material Safety Data Sheets (MSDS)**

- A. The Science Department Specialist is responsible for acquiring and maintaining the necessary MSDS.
- B. The MSDS are filed alphabetically by common name, e.g., Acetone.
- C. The MSDS are located in an area accessible to all laboratories and chemical storage areas.

## 5. Waste Disposal

- A. It will be the responsibility of the Science Department Specialist to collect and document materials used in the lab that require special disposal methods. Disposal information will be obtained from MSDS as well as known reference material on the safe handling, storage and disposal of hazardous chemicals.
- B. Hazardous waste will be collected and stored in appropriately constructed and labeled containers until a qualified hazardous waste transporter removes it for disposal. The Facilities Department will arrange for this Hazardous Chemical Disposal service.
- C. The Safety Manager will maintain Hazardous Waste Manifests for three (3) years from date of pick up.

## 6. **Outside Contractors**

The Facilities Department will communicate with the Science Department Specialist before a project is scheduled in the area of chemical laboratories or chemical storage to ensure that the contractor is provided with hazardous chemical information pertinent to the project.

## 7. Spills and Accidents

- A. The Palm Beach State College Emergency Evacuation Plan will be distributed to faculty and staff as part of the Safety Manuel.
- B. Spill control procedures for each chemical are detailed in the MSDS. Appropriate spill control materials are located in areas where acids, caustics and solvents are routinely used or stored.

- C. In the event a program participant is known or suspected to have been exposed to a toxic chemical:
1. Personal decontamination is to be done immediately following exposure. The decontamination procedure for each chemical is described in the MSDS.
  2. Notification is to be made to the program participant that he/she has the right to a medical consultation to determine if a medical evaluation should be performed. Documentation of the incident will be filed in the Human Resources Department.
  3. If a medical evaluation is conducted, the exposed individual shall be notified in writing of all findings, medical opinions and recommendations.

## **8. Basic Rules and Procedures for Working with Chemicals**

- DO:**
- Keep only the amount of chemical needed to do the immediate lab procedure
  - Perform lab work in the lab, not in storage or other areas
  - Store toxic substances in approved containers that are housed in ventilated, identified and locked storage areas
  - Check stored chemicals regularly for deterioration and broken containers
  - Dispose of chemicals, broken glass and other waste in approved receptacles
  - Clean up broken glass and spills immediately
  - Keep the lab clean and neat
  - Learn how to dispose of materials safely and legally
  - Know what to do in an emergency
  - Avoid using damaged glassware
  - Avoid storing chemicals near heat or sunlight, or near other substances with which they might react
  - Use a cart or chemical carrier to transport chemicals between the Lab and storeroom
  - Know where chemicals should be stored; avoid permanent storage in hoods or on bench tops
  - Store materials above the floors to avoid tripping hazards
  - Avoid keeping chemicals that are no longer needed

- Avoid leaving equipment unattended when in operation
- Be alert to unsafe conditions and seek correction when detected
- Avoid behavior, which might confuse, startle or distract others working in the lab
- Avoid working alone in the building

## **9. Training**

### **A. Initial Awareness and Training**

Upon hire, employees shall receive information regarding occupational Exposure to Hazardous material as well as information contained in the Chemical Hygiene Program. Students receive this information as part of their laboratory curriculum.

### **B Annual Training**

Employees at risk of occupational exposure to hazardous material will receive annual training within their departments.

Training for Science Department faculty and staff will include:

1. Details of the Palm Beach State College Chemical Hygiene Plan including an explanation of the following:
  - a. Location and availability of the Chemical Hygiene Plan
  - b. Basic Rules and Procedures for working with chemicals
  - c. Labeling system
  - d. Material Safety Data Sheets
  - e. Personal Protective Equipment
  - f. Disposal of hazardous waste
2. Safety and health hazards of the chemicals encountered in the Science Lab
3. Signs and symptoms associated with exposure to hazardous chemicals used in the lab

4. Detection and management of hazardous chemical spill
5. Required procedures following an Accident/Incident in the Lab
6. Contents of the Occupational Exposure to Hazardous Chemicals in Laboratories; Final Rule

## 10. **Records**

### A. **Chemical Hygiene Plan**

Palm Beach State College Chemical Hygiene Plan is designed to bring this facility in compliance with current knowledge and regulations. It is the responsibility of the Science Department Specialist and College Safety Manager to review and update this plan annually.

### B. **High Risk Substances**

The Science Department Specialist will maintain inventory and usage records for high-risk substances.

### C. **Accident/Incident Reports**

The Human Resources Department will maintain copies of all Accident/Incident Reports involving the Science Department personnel.

### D. **Training Records**

The Science Department Specialist will maintain safety-training records for a period of three (3) years from date of training.

Click on the link to see <http://www.osha.gov>