



Chemical Management and Protocol

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INTRODUCTION

The goals of our Chemical Management System are the following:

1. To facilitate the physical inventory of our laboratory chemicals through centralization and the use of bar-coding technology (ChemSW);
2. To minimize chemical purchasing and waste disposal costs;
3. To ensure that the hazards associated with the chemicals and chemical products we import are properly identified and that the health and safety information is readily available and accessible; and ultimately
4. To provide and maintain a safe and healthy environment for students, faculty, staff, and visitors.

The decision to purchase a chemical shall be a commitment to handle and use the chemical properly from initial receipt to ultimate disposal (cradle to grave).

Requests for procurement of new chemicals shall be initiated by contacting the chemical stockroom staff. They will assist with arrangements for safe procurement and receipt of the new chemical(s). All involved personnel prior to the purchase of the chemical(s) should understand information and be trained in proper handling, storage and disposal. Chemical stockroom personnel shall receive all chemicals. If a chemical cannot be delivered to chemical stockroom personnel, the person, who receives these chemical shipments, should be knowledgeable of the proper procedures for receipt, see the Chemical Hygiene Plan found at <http://wilkes.edu/about-wilkes/university-committees/environmental-health-and-safety-committee-ehsc/safety-resources-and-policies.aspx>. It is important that chemicals are not delivered to an office area where support staff and visitors, do not have the required training to be exposed to chemicals. Chemical containers shall not be accepted without accompanying labels, safety data sheets and packaging in accordance with all appropriate regulations.

SCOPE

This fieldwork safety protocol applies to all Wilkes University employees, students, and volunteers performing research or work while on campus or in the field.

ORDERING CHEMICALS AND CHEMICAL PRODUCTS

- 1.1 POLICY.** All chemicals will be purchased through the chemical stockroom in accordance with the ordering procedures listed below.
- 1.2 PROCEDURES.** The following outlines the steps for ordering a chemical for use in any Wilkes University laboratory`:
 - A. Check your laboratory and other department to be sure that the item you need is not already on site.
 - B. Initiate the order by filling out a **Chemical Requisition Form** signed by the appropriate budget manager.
 - C. E-mail or bring this form to the chemical stockroom personnel (CSC322). Stockroom personnel will determine if the chemical if the chemical is in stock if not, an order will be placed.
 - D. In April and May of each fiscal year, the chemical stockroom staff must request approval from the controller's office before any order is placed.
- 1.3 DELIVERY OF ORDERS.** The order will be delivered to the chemical stockroom (CSC322) where it is unpacked, dated and inventoried. A bar-code label will be placed on each container and a (M)SDS provided. The person, who requests the chemicals, will picks up the chemicals and must sign and date the chemical log notebook.

- 1.4 EMPTY CHEMICAL CONTAINERS.** Once a chemical is depleted, the container must be rinsed and returned to the chemical stockroom so the chemicals will be removed from the inventory. This will allow chemical stockroom personnel to maintain an up-to-date inventory.

The key to achieve these goals is to centralize the purchase of chemicals using a P-card. Using a P-card will save time on waiting for the purchase order.

PROCEDURES FOR OBTAINING CHEMICALS FROM THE CHEMICAL STOCKROOM

- 2.1 POLICY.** Every attempt will be made to use existing chemicals from the Chemical Stockroom rather than purchase "new" materials. Please return unwanted chemicals to the stockroom in a timely manner so that they can be used by others.
- 2.2 PROCEDURES.** Chemicals may be obtained from the stockroom by one of the following methods:
- A. Fill out a Stockroom Request Form (SRF) with the name of the desired chemical and an authorized signature and e-mail to the chemical stockroom personnel
 - B. Come to CSC 322 during regular hours and place your request in person. If you send a student, they must present a properly completed SRF.

DISPOSAL OF CHEMICAL WASTE

The University is required by Federal and State regulations to develop and implement a Waste Minimization Strategy. Ways to help achieve the goal of reducing the volume of chemical waste generated on campus includes but is not limited to:

- 3.1 REDUCING CHEMICAL PURCHASE.** Centralizing purchasing of chemicals to one person so that purchase are not duplicated. A substantial portion of hazardous waste produced at the University consists of unused, outdated chemicals. Careful planning of quantities of chemicals required can reduce costs to the laboratory and reduce waste volumes. Many chemicals may also degrade over time, so carefully consideration of quantity is required. Also, risk of accident and exposure to chemical and space needs are less when handling the smaller container. Although it may seem less expensive to buy chemicals in larger quantities, it is in fact more expensive if the cost for disposal is taken into consideration. When disposal cost are considered, it is more economical to purchase only the quantities of chemicals that will be used with more frequency that to stock up to avoid delay in ordering.
- 3.2 INVENTORY.** Maintaining an accurate chemical inventory reduces or eliminates the number of redundant chemical containers purchased. A successful laboratory inventory will catalog chemicals at least once a year, identify the storage locations of chemicals, and eliminate chemicals from the inventory when they are consumed. Date chemical containers when they are received so that older ones will be used first.
- 3.3 SHARE SURPLUS CHEMICALS.** Sharing surplus chemicals with other labs will avoid accumulation of outdated materials and storage problems.

Until an effective chemical stock management program is introduced throughout Wilkes University, old chemical stock will be a major portion of the waste stream. Some of this old stock is hazardous waste. Other constituents of this old stock may not meet the definition of hazardous waste. In order that liabilities are minimized, these old chemicals are given to a waste disposal, the cost of their disposal is as much as the cost of hazardous chemicals.