RULES FOR THE SAFE HANDLING OF CHEMICALS IN THE LABORATORY

The following rules should be used for all work involving chemicals.

Accidents and spills:

Eye Contact: Promptly flush eyes with water for a prolonged period (15 minutes) and seek medical attention.

Ingestion: Refer to the Material Safety Data Sheet.

Skin Contact: Promptly flush the affected area with water and remove any contaminated clothing. If symptoms persist after washing, seek medical attention.

Clean-up. Promptly clean up spills, using appropriate protective apparel and equipment and proper disposal.

Avoidance of "routine" exposure: Develop and encourage safe habits; avoid unnecessary exposure to chemicals by any route.

a. Do not smell or taste chemicals.
b. Vent any apparatus which may discharge toxic chemicals into local exhaust devices.
c. Inspect gloves and other personal protective equipment before use.
d. Do not allow release of toxic substances in cold rooms and warm rooms, since these have contained re-circulated atmospheres.

Choice of chemicals: Use only those chemicals for which the quality of the available ventilation system is appropriate.

Eating, smoking, etc.: Do not eat, drink, smoke, chew gum, or apply cosmetics in areas where chemicals are present; wash hands before conducting these activities. Do not allow storage, handling, or consumption of food and beverages in areas which are used for chemical operations.

Equipment and glassware: Handle and store chemical glassware with care to avoid damage; do not use damaged glassware. Use equipment only for its designed purpose.

Exiting: Wash hands and areas of exposed skin well after chemical use.

Horseplay: Avoid practical jokes or other behavior which might confuse, startle or distract another worker.

Mouth suction: Do not use mouth suction for pipetting or starting a siphon.

Personal apparel: Confine long hair and loose clothing. Wear shoes at all times. Do not wear sandals or perforated shoes.

Personal housekeeping: Keep the work area clean and uncluttered, with chemicals and equipment being properly labeled and stored; clean up the work area on completion of an operation or at the end of each day.

Personal protection: Assure that appropriate eye protection is worn by all persons, including visitors, where chemicals are stored or handled. Wear appropriate gloves when the potential for contact with toxic materials exists; inspect the gloves before each use, wash them before removal, and replace them periodically. Use appropriate respiratory equipment when air contaminant concentrations are not sufficiently restricted by engineering controls, inspecting the respirator before use. Use any other protective and emergency apparel and equipment as appropriate. Avoid use of contact lenses unless necessary; if they are used, inform supervisor so special precautions can be taken.

Planning: Seek information and advice about hazards, plan appropriate protective procedures, and plan positioning of equipment before beginning any new operation.

Unattended operations: Leave lights on, place an appropriate sign on the door, and provide for containment of toxic substances in the event of failure of a utility service (such as cooling water) to an unattended operation.

Use of Local Exhaust Ventilation (LEV): Use LEV for operations which might result in release of toxic chemical vapors or dust. In general, use the chemical fume hood whenever feasible to limit exposure to laboratory workers. Confirm adequate hood performance before use; keep hood closed at all times except when adjustments within the hood are being made; keep materials stored in hoods to a minimum and do not allow them to block vents or air flow. Leave the hood "on" when it is not in active use, if toxic substances are stored in it or if it is uncertain whether adequate general laboratory ventilation will be maintained when it is "off".

Vigilance: Be alert to unsafe conditions and see that they are corrected when detected.

Waste disposal: Deposit chemical waste in appropriately labeled chemically compatible receptacles and follow USU Hazardous Waste Guidelines. The following chemicals will not be discharged to the sewer: concentrated acids or bases, toxic, malodorous, lachrymatory explosives, re-actives, or flammable substances; or any substances which might interfere with the biological activity of waste water treatment plants, cause structural damage or obstruct flow. Consult the EH&S Office if you have disposal questions on a particular chemical waste.

Working alone: Avoid working alone in a building; do not work alone in a laboratory if the procedures being conducted are hazardous.