

Transportation of hazardous materials

Guidelines for the on-campus transport of hazardous materials

College of Natural Sciences and Mathematics

Precautions must be taken when transporting hazardous materials (e.g. chemical, biological) within and between buildings. Whenever a person is transporting hazardous materials, they must be aware of the contents and hazards of each container, personal protective equipment required for handling the material, and what to do in the event of a leak or spill.

The following guidelines shall be followed when hazardous materials are transported between laboratories within and between buildings.

1. Hazardous materials must be in sealed containers, clearly labeled with the contents name and the applicable hazard(s).
2. Hazardous materials must be transported in commercially available bottle carriers designed for this purpose or utility carts with integrated leak-proof shelving or plastic totes securely placed on shelving
 - a. Secondary containers shall be large enough to hold the contents of the container in the event of breakage and be made of a chemically compatible material.
 - b. Transporting volumes of hazardous materials over 100 mL require the use of a 4-wheeled cart such as utility carts with adequate secondary containment.
 - c. When transporting incompatible chemicals, chemical containers must be segregated by hazard class.
 - d. Hazardous materials must never be left unattended while in transport.
 - e. Hazardous materials may be transported in their original Department of Transportation (DOT) approved shipping container.
 - f. Alternatives to the above guidelines must have prior written approval by campus EH&S.
3. Compressed Gas Cylinders
 - a. When transporting gas cylinders the cylinder must be secured to a cylinder dolly. Small cylinders, dewars, or lecture bottles can be transported on carts.
 - b. Cylinders designed with a threaded valve cap must have the cap in place for transport.
4. Prior to transporting hazardous materials, the exterior of the container must be free of gross contamination and the container must be in good condition.
5. Appropriate personal protective equipment shall be worn for the materials being handled. (Refer to departmental PPE policies and laboratory hazard assessments. Examples include: safety glasses or goggles, lab coat, gloves, close-toed shoes, etc.) If gloves are required for transport, keep one ungloved hand to touch surfaces (e.g. doorknobs, elevator buttons).
6. When moving between floors, use a freight elevator whenever possible. If a freight elevator is not available, do not transport materials in an elevator that is already occupied by others. If people attempt to enter the elevator, inform them that you are carrying hazardous materials and that they should take the next one available.
 - a. Extra caution should be taken when moving cryogenics such as liquid helium or nitrogen. Do not transport containers holding cryogenics inside elevators at the same time as people. Put the container into the elevator and place a sign on the cylinder facing the door "Do not enter elevator, asphyxiation hazard." Send the elevator to the desired floor and have a second individual there to receive it.