



## TRANSPORTING CHEMICALS SAFELY ON CAMPUS

The Environmental Health and Safety Office (EHS) has established the following guidelines as the minimum acceptable practice for transporting toxic, flammable, reactive, or corrosive chemicals on campus. If desired, individual departments may establish more stringent requirements for transportation of these materials within campus buildings.

These guidelines do not apply to radioactive materials or to chemicals packaged for household use, or for off-campus purposes. For information on transporting radioactive materials, call EHS at 7-1111.

### Guidelines for Transporting Chemicals (including gas cylinders)

- All chemicals must be transported within secondary containers capable of holding all materials in the event of a spill. Acceptable secondary containers include plastic bottle carriers with closed tops and handles or non-metal liquid-tight carts with lips on all four sides. Never transport incompatible chemicals in the same secondary containment. Use plastic tubs or separate bottle carriers to prevent incompatibles from mixing.
- Use freight elevators for moving chemicals between floors. If freight elevators are not available, use unoccupied passenger elevators. Stairs should be used only if elevators are not available.
- Wear appropriate Personal Protective Equipment (PPE). Minimum PPE includes safety glasses, lab coat or other appropriate lab attire, and closed toe shoes. Hazardous chemicals must be attended to at all times while being transported.
- Individuals transporting chemicals must ensure containers are properly labeled and know what to do in the event of a release or spill. Safety Data Sheets (SDSs) are a good source for this information.
- Transport compressed gas cylinders using special compressed gas cylinder handcarts. When transporting cylinders across asphalt, uneven terrain or between buildings, two people must be in attendance to prevent tipping and unanticipated jolting of the gas cart. Cylinders must be securely attached to the cart and valve protection caps must be in place.
- Materials that are unstable, explosive, or unusually hazardous due to size or toxicity should not be moved without first contacting EHS or the Chemistry Lab Manager, (e.g. outdated peroxide formers such as THF, dry Picric Acid, >20 gal containers of acutely hazardous materials).
- Transport on paved paths and sidewalks rather than streets or roads. Two people must be in attendance to prevent tipping cart as it is moved over uneven terrain and changes in elevation.
- If vehicles are to be used for transporting chemicals, transportation must be done in a UNC-Charlotte owned vehicle and it must be driven by a UNC-Charlotte employee. In addition, vehicles must travel only on UNC-Charlotte owned roads. Contact EHS at 7-1111 if a chemical must be transported onto or off of campus.
- Avoid transporting chemicals in a passenger vehicle
- Transport cryogenic materials only in approved storage vessels (e.g. dewar flasks with pressure relief mechanisms). Use appropriate PPE including eye protection in the form of a face shield or goggles, heavy gloves, heavy apron, and closed-toe shoes. Never transport in the passenger compartment of a vehicle due to the hazard from asphyxiation. For more details on transporting cryogenic materials, see the [Cryogenic Materials Program](#).