

Best Practices when Transporting Chemicals for Demos, Lectures, or Similar Reasons

The following CANNOT be transported by personal vehicles:

- Explosives
 - Self-reactive chemicals
 - Toxic gases and chemicals that are poisonous if inhaled
 - Hazardous waste
1. Avoid transporting chemicals if possible – ask the hosting venue to supply chemicals or have them delivered to the location when ordering.
 2. Always have an inventory of the chemicals being transported – use the proper chemicals names such that SDS's can be generated
 3. Place chemicals in plastic totes or Rubbermaid-like containers for secondary containment and to keep out of sight. Chemicals must have caps or stoppers to prevent spills or leaks and should have packing materials around them within the totes to prevent bottles from colliding with each other and breaking.
 4. Always lock the vehicle when chemicals are being left inside – do not leave them for lengths of time if the materials are temperature sensitive.
 5. Only transport the quantities needed and avoid excessive amounts. Do not transport more than 20L or 20kg of a chemical class at any one time. (Example: 4L of acetone, 4L of methanol and 4L of acetonitrile < 20L total of flammable liquids)
 6. Air or water sensitive materials should be kept under 30mL or 30mg and in dry, sealed containers within secondary containment (a plastic bin or container).
 7. All materials should have proper WHMIS labeling especially if the original bottle is not being used.
 8. Put chemicals in totes by hazard class, not experiment. Put all acids in one, bases in another, flammables in a third etc.
 9. Cryogenics under 20L in volume should be transported in proper dewars designed for this purpose. Ensure proper ventilation in the vehicle and secure the dewars in an upright manner such that tipping is not possible.
 10. Do not delegate the loading or unloading of chemicals to a volunteer or helper who is unfamiliar with the hazards.
 11. Spill kits for each liquid class being used should be transported with the chemicals to the destination should a spill occur while in transport or at the location of the lecture etc.