

### **Before you begin!**

Review the following preparatory list of questions before starting any experiment or handling chemicals. This list of questions serves as a starting point which you may supplement or modify. Your supervisor or principal investigator should be able to help you answer these questions.

1. Do I know the locations of the emergency equipment (i.e. eyewash, safety shower, fire extinguisher, spill clean-up kits, first-aid supplies)?
2. Do I always wear safety goggles or safety glasses when I work in the laboratory?
3. Have I read and am I familiar with key elements of the standard operating procedures (SOPs) for the experiment that I am to perform?
4. Do I understand the information in each material safety data sheet (MSDS)?
5. Has the laboratory supervisor identified key proper protective equipment (gloves, lab coat, eye protection, etc.) that I need to work with the chemicals that I will use in the experiment that I am about to perform?
6. Do the chemicals that I will be using require special environments, or designated areas (fume hoods, biosafety cabinets, dry ice, etc.) as described in the experiment procedures?
7. Have I been provided with sufficient space to work safely?
8. Is the equipment to be used compatible with the chemicals that I will be using?
9. Are the fume hoods working adequately?
10. Have I been trained, and do I know how to use the protective equipment properly?
11. Have I discussed with my lab partners the protective equipment that they should also wear?
12. Is there an emergency plan in case the ventilation (hood) fails, or an accident occurs, and am I familiar with this plan?
13. Do I know how to initiate an emergency evacuation, and do I know the emergency evacuation routes?
14. Do I know the potential interactions of chemicals that I will be working with, i.e., whether they could lead to a hazardous incident?
15. Do I know what to do with the chemical waste generated from the procedure?

Do not handle a chemical without knowing whether the material has any hazardous properties. You need to know whether the material is flammable, corrosive, reactive, or highly toxic so that the proper procedure and safety equipment are chosen. Volatile chemicals must be handled inside a chemical fume hood. Before handling any chemicals consult a material safety data sheet (MSDS), reference book, or contact RAGS (4996) for help. Your Department has the Sigma-Aldrich CD-Rom MSDS database available on computer or local network. Contact your Department Chemical Hygiene officer so that you may have access to this data base in your laboratory.