LABORATORY SAFETY RULES AND REGULATIONS

The following safety rules must be observed while performing any of the scheduled laboratory experiments in the Analytical Chemistry Laboratories. Please sign the accompanying sheet (Safety Certification) after you have read through the safety rules and regulations. Ask if any of the items need clarification.

1. Conduct yourself in a responsible manner at all times in the laboratory.
2. Follow all written and verbal instructions given by your teacher. If you do not understand a direction or part of a procedure, ASK YOUR TEACHER BEFORE PROCEEDING WITH THE ACTIVITY.
3. Never work alone in the laboratory. No student may work in the science classroom without the presence of the teacher.
4. Perform only those experiments authorized by your teacher. Carefully follow all instructions, both written and oral. Unauthorized experiments are not allowed.
5. No chemicals or equipment may be removed from the laboratory.
6. Do not eat food, drink beverages, or chew gum in the laboratory. Do not use laboratory glassware as containers for food or beverages.
7. Be prepared for your work in the laboratory. Read all procedures thoroughly before entering the laboratory.
8. Work areas should be kept clean and tidy at all times. Clean up your work area before leaving.
9. Read labels carefully.
10. Dispose of all chemical waste in the designated disposal site—not in the sink or trash can. Never mix chemicals in sink drains.
11. Wear safety goggles at all times. NO EXCEPTIONS TO THIS RULE! Contact lenses may be not be worn in the laboratory.
12. Dress properly during a laboratory activity. Long hair, dangling jewellery, and loose clothing are a hazard in the laboratory. Long hair must be tied back, and dangling jewellery and loose clothing must be secured. Shoes must completely cover the foot.
13. A lab coat should be worn during laboratory experiments. NO EXCEPTIONS TO THIS RULE!
14. Report all accidents, injuries, and breakage of glass or equipment to instructor immediately. Do not panic.
15. If a chemical should splash in your eye(s) or on your skin, immediately flush with running water for at least 20 minutes. Immediately inform your teacher.
16. Clean up any spill immediately.
17. All chemicals in the laboratory are to be considered dangerous. Avoid handling chemicals with fingers. Always use a tweezer. Do not taste, or smell any chemicals.

18. Check the label on all chemical bottles twice before removing any of the contents. Take only as much chemical as you need and share any excess.
19. Never use one pipette for different chemicals. Do not insert your pipette or dropper into the reagent bottles. Use the one that is designated (labeled) for that reagent.
20. Do not take the reagent bottles away from their places. Carry liquids to your bench in clean test tubes or beakers and carry solids in clean beakers or on weighing paper.
21. Never return unused chemicals to their original container.
22. Never remove chemicals or other materials from the laboratory area.
23. Examine glassware before each use. Never use chipped, cracked, or dirty glassware. Place broken glass in the designated glass disposal container. Use a brush and dustpan to clean up broken glass.
24. If you do not understand how to use a piece of equipment, ASK THE TEACHER FOR HELP!
25. Always use a pipette bulb or a pipetter to transfer when using a pipette. Never use your mouth.
26. Always use a fume hood when working with toxic substances. Never inhale fumes directly.
27. Always add acid to water. This prevents the acid from spattering.
28. Point heating test tubes away from others and yourself, and heat them slowly.
29. Never look into a container that is being heated.
30. Learn the location of the fire extinguisher, eye wash station, first aid kit and safety shower.
31. When lab work is completed, all materials must be returned to their proper places and used benches, instruments and glassware must be cleaned up.
32. Always wash your hands before leaving the laboratory.

Laboratory safety links and resources:

1. The Laboratory Safety Institute
   http://www.labsafetyinstitute.org/
   Free documents from the International Center for Science Safety
2. Princeton University Laboratory Safety Manual
   https://ehs.princeton.edu/
   resources for individuals working in research and teaching laboratories.
3. Environmental Protection Agency Hazardous and Toxic Chemical Search -
   http://www2.epa.gov/
   chemicals that are monitored by EPA's Major Program Systems Free documents from the International Center for Science Safety