

16 S SAFETY RULES IN THE **12 C** CHEMISTRY LAB

The exercises done in this lab class pose little or no safety hazard. You must use common sense and always keep safety in mind while working. The precautions outlined below will make the lab safer for everyone.

General Safety Guidelines

1. Reading experiment write-ups in advance allows you to work more efficiently, manage your time wisely and be aware of safety precautions. Ask your instructor for clarifications before you begin the experiment.
2. Follow directions specified in the lab manual. Carefully listen to additional information from your instructor. Do not perform any unauthorized experiments and do not deviate from the procedure.
3. Come to class in the correct lab attire – long pants and closed-toed shoes. Do not wear loose sleeves (e.g. bell- or kimono-style) that can tip over glassware/equipment. Long hair must be tied back to avoid it falling into chemicals or flames.
4. Always wear eye protection inside the lab. Even when you are just taking notes after you finish the experiment, you are still exposed to safety hazards when people around you are working. Prescription eyeglasses and contact lenses can be worn in the lab, but safety goggles must still be used.
5. Do not eat, chew gum, drink, smoke or apply cosmetics in the lab. Food and drinks should never be on your work area and should be tucked away.
6. Horseplay, practical jokes and pranks are strictly prohibited in the lab.
7. Always be aware of safety as you perform lab techniques such as in manipulating glassware, handling chemicals, working in your limited bench space and in common areas.
8. Learn proper emergency procedures and what safety equipment are available. The lab is equipped with first aid kit, fire extinguisher, fire blanket, emergency drench hose, eyewash station and emergency shower. In case of emergency, call 911.
9. Keep in mind that you share the lab with students in your class and other classes. Keep your benches and the common areas clean. Take care of your own spills and messes. Properly dispose your wastes. Glassware taken from shelves must be returned to the shelves washed. Your work area and all equipment and materials on it must be clean and ready for the next student.

Lab Safety

1. Upon entering the lab, bags and books should be tucked under your desks, so that the aisles are clear. No food and drinks on the benches. Phones must be tucked away and may only be used in case of emergency.
2. Set-up your workspace so that it is safe, secure and efficient. It should be clear of any unneeded materials. Bunsen burner tubings and electrical cords should be placed so they cannot be snagged accidentally.
3. Inspect glassware before use. Glassware that is sharp-edged, broken, chipped or badly scratched should not be used and must be returned to your instructor or disposed of in the designated container for broken glassware. If you break glassware, do not pick up the pieces with your hands, use broom and dustpan. Dispose in the broken glassware box.

4. Wait for glassware or apparatus that has been heated to cool before handling. Use appropriate equipment like test tube holder and beaker and crucible tongs.
5. Be cautious around Bunsen burners as their flames can be nearly invisible.
6. Close the bench gas valve when the Bunsen burner is not in use.
7. Read chemical container labels carefully. Using the wrong reagent may ruin your experiment and may result to a dangerous reaction. Follow the amounts specified on the procedure.
8. Do not taste chemicals.
9. Avoid inhaling vapors from chemicals, unless you are asked to detect odor. Do not sniff on the chemical or container. Fan vapor gently toward your nose from the neck of the chemical container.
10. Some reactions need to be carried out in the lab fume hoods. Vapors must be released at least six inches inside the hood. Close the hood as far as you can while your arms and hands work inside the hood. Avoid rapid movements. Never put your face and head in the hood.
11. Dispose of chemical wastes in the appropriate containers provided in the front hood.
12. Wash your hands if you inadvertently touch chemicals. Wash your hands before you leave the lab.

Chemical and Fire Emergency Procedures

1. Report accidents, injuries and contact with chemicals to your instructor.
2. In case of burns, cool the affected area with cold running water for several minutes. Repeat if necessary. Notify your instructor.
3. If chemicals splash in your eyes, flush your eyes thoroughly for at least 15 minutes in the eyewash station; keep your eyes open while flushing or ask someone to pull your eyelids back. For contact lens users, begin eye irrigation immediately and remove contact lens as soon as practical.
4. If chemical splashes on your skin, wash off with cold water for at least 15 minutes. Use an appropriate water source, such as faucet, drench hose or safety shower.
5. If chemicals are splashed onto clothing, remove clothing.
6. If chemicals spill on the bench or floor, notify your instructor and everyone nearby. Neutralize acid with sodium bicarbonate and base with dilute acetic acid, then remove residue and wipe dry.
7. In case of fire, evacuate the area. If it will not pose danger to yourself, try to confine the fire. Close the sash if the fire is in the hood. Close the doors to the lab. Call 911 even if the fire is extinguished.
8. If your clothing catches fire, do not run. Stop, drop and roll. If someone else's clothing catches fire, stop him/her from running and help him/her drop and roll. Call for medical help ASAP. Cool burns with cold running water.

Please sign and submit to your instructor.

Student's name: _____

I have read, understand, and agree to comply with the Chemistry lab safety rules.

Signed: _____ Date: _____