

# Winthrop University - Safety in the Chemistry Laboratory

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The Department of Chemistry, Physics, and Geology at Winthrop University makes every effort to provide a safe learning environment for the chemistry student. All laboratory experiments are checked for safety when performed according to the directions. **STUDENTS ARE RESPONSIBLE FOR READING ALL SAFETY PRECAUTIONS FOR PERFORMING EACH EXPERIMENT BEFORE COMING TO LAB.** Part of the educational program in chemistry is to learn how to handle potentially hazardous materials in a safe and efficient manner. As with any activity where there is the potential for a serious accident, the fundamental responsibility lies with the individual. The principle effort in conducting a safe laboratory program is thorough preparation and constant vigilance. **WHENEVER THERE IS ANY DOUBT ABOUT THE SAFETY OF A PROCEDURE OR WHAT PRECAUTIONS SHOULD BE TAKEN, ASK YOUR INSTRUCTOR BEFORE BEGINNING THE EXPERIMENT.**

The following rules will be strictly enforced. If you violate these rules, you will be asked to leave for the safety of the other students. You will not be allowed to return or complete the lab assignment at a later date.

- Always wear safety glasses. It is your responsibility to provide department approved safety glasses. Chemical splash goggles (NOT GLASSES) are required. Goggles must be worn by everyone, including those who wear eyeglasses or contact lenses. The bookstore sells the appropriate goggles.
- It is poor personal hygiene to share eye protection.
- The American Chemical Society Committee on Chemical Safety has studied and reviewed the wearing of contact lenses in the laboratory. They recommend that contact lenses can be worn in most laboratory environments provided the same approved eye protection is worn as required of other workers in the lab. If you wear contact lenses in the lab, your instructor will give you a colored sticker to place on your goggles indicating that you are wearing contacts.
- Open-toe shoes are not allowed. Closed-toe shoes, preferably leather, that cover the entire foot are required for each lab. If you come to lab with the wrong shoes, you will have to leave.
- Avoid loose clothing that could become caught in equipment or easily knock over containers.

- Rubber aprons are available in the general chemistry labs and must be worn while working in the laboratory.
- No eating, drinking, or tobacco use in the laboratory. Also, be sure to wash your hands prior to leaving lab for the day.
- Cell phones and music players are not allowed in lab. If you must answer your cell phone in lab, wash your hands before handling the phone.
- "Horseplay" and unauthorized experiments are strictly forbidden
- Pull back long hair, especially around flames and caustic chemicals.
- Learn the location of all safety equipment such as eyewash stations, safety showers, fire blankets, and fire exits before beginning work in the laboratory.
- Keep aisles and exits clear. There are areas designated for storing bookbags. Do not store your bookbag on the floor.
- Close your lab drawer after removing laboratory equipment.
- Practice good housekeeping; leave the lab cleaner than you found it. Clean up small chemical spills immediately. For larger spills, notify your instructor immediately.
- Return equipment and chemicals to the appropriate storage area when you are finished using them.
- Be sure to inspect glassware before using. Discard any glassware that is cracked, chipped, scratched or has any other obvious defect.
- Discard broken glassware in the broken glass container in the front of the lab.
- Do not insert glass tubing into a rubber stopper without advanced training. There is special equipment that should be used in order to minimize the risk of injury.
- Never leave an open flame or rapid reaction mixture unattended. In the event of a fire, turn off your Bunsen burner and exit the building.
- Always add acids to water never water to acids.
- Keep substances with irritating fumes under your fume hood at all times.

- Return caps and lids to all reagent bottles immediately after use. Don't assume the next person will do that for you. If you remove it, put it back.
  - Never return reagents to stock bottles. This contaminates the stock and may cause a violent reaction.
  - Dispose of unused or contaminated reagents in labeled containers as directed by the instructor. Do not put any chemicals down the drain unless otherwise directed by your instructor.
  - Use extreme caution when testing odors.
  - Never pipet by mouth. Always use a rubber bulb.
  - Report any accident to your instructor immediately.
  - Never work alone in the laboratory.
  - If for any reason your instructor feels that your safety is in jeopardy or that you are jeopardizing the safety of others, you will be asked to leave the lab. You will not be allowed to return to make up missed work and you will receive a zero for that day's work. You will not be allowed to return to future labs until the situation is corrected.
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