

Safety Rules of $\text{C}_2\text{H}_4\text{O}_2$ College

- 1) Wear approved eye protection in the laboratory **continuously**, even when not performing an experiment. This means eye covering which will protect both against impact and splashes. This is a state law. Do **NOT** wear contact lenses in the laboratory. If you wear prescription glasses in the lab, you must wear goggles. If you should get a chemical in your eye, wash it with flowing water from the eye wash for 15 minutes.
- 2) Perform no unauthorized experiments. Horseplay, pranks and other acts of mischief will not be tolerated. No visitors are allowed in the laboratory.
- 3) To prevent fire, keep flammable substances away from open flames, heat (this includes hot plates) and sparks. Do not place gas burners near wooden surfaces or compressed gas cylinders. In case of fire or accident, call the instructor at once. Note location of safety shower and fire blanket now so that you can use them if needed. If the fire alarm sounds, leave the building **immediately**. Do not use the elevator.
- 4) You must go to the Infirmary, accompanied by someone, for treatment of cuts, burns or inhalation of fumes. Your instructor will arrange for transportation if needed. Any personal injury, regardless of how minor, must be reported.
- 5) Do not taste anything in the laboratory. This applies to food as well as chemicals. Do not use the laboratory as an eating place and do not eat or drink from laboratory glassware. Smoking and the application of cosmetics are also prohibited. Do not touch your mouth with your hands while you are in the laboratory. Wash your hands well before leaving the laboratory.
- 6) Exercise great care in noting the odor of fumes, and avoid breathing fumes of any kind.
Keep chemicals in the fume hood whenever indicated.
- 7) **NEVER** use mouth suction to fill pipets with chemical reagents. Use a suction bulb or pipet pump.
- 8) Do not force glass tubing into rubber stoppers. Lubricate with glycerin or water and protect your hands with a towel.
- 9) Confine long hair and loose clothing when in the laboratory. Do **NOT** wear: open-toed shoes, nylon stockings or high heels. It is also recommended that you avoid wearing short sleeve shirts, shorts and skirts. A laboratory apron is essential. They are fire resistant and protect you and your clothing from corrosive chemicals. Wear gloves when working with corrosive or toxic chemicals. Gloves should be removed if you need to leave the laboratory (to go to the stockroom, for instance).
- 10) **Never** work in the laboratory alone or without the presence of a supervising instructor.
- 11) Never leave heated laboratory reactions unattended. Beware of hot glass. It cools slowly and is identical in appearance to cold glass. Always use the proper equipment when handling hot glass (tongs, insulated gloves, etc.).

- 12) Clean-up broken glass immediately with a dust pan and brush, and dispose of it in the proper waste box. Handle broken glassware with a towel or thick gloves. Glass tubing and rods must be fire polished. Do not subject a flask to sudden changes in temperature.
- 13) Keep your work space uncluttered. Do not place coats, purses, or backpacks on the laboratory bench or in the aisles—use the locker room located at the end of the hallway to store these items. Keep drawers and cabinet doors closed while working. Do not place chemicals or equipment on the floor. Do not leave pipets sticking out of bottles, flasks or beakers.
- 14) Assemble all required materials before beginning a task. Place glassware and equipment well back from the front edge of the lab bench.
- 15) Mercury is toxic. Call your instructor whenever a mercury thermometer is broken so that he/she can take charge of the clean-up.
- 16) Dispose of chemical wastes only as instructed. **Never** mix acid waste with organic waste.
- 17) Clean up all chemical spills at once. Acid spills should be neutralized with sodium bicarbonate. Plenty of running water is the best first-aid treatment for all chemical spills to the skin, clothing and lab bench. If a large amount of corrosive material is spilled on clothing, remove at once and use safety shower. Notify your instructor.
- 18) Do not "dry sweep" spilled solid material. Cover the solid with wet paper towels, and pick up the material. If the material is hazardous, dispose of the towels as a hazardous waste. Clean the area with soap and water.
- 19) Always add acid to water; **never** water to acid. Use care and mix slowly.
- 20) Avoid slipping hazards by picking up ice, stoppers, glass rods and other small objects from the floor.
- 21) Radios are a distraction and therefore are not allowed in the undergraduate labs.
- 22) Do not handle electrical equipment with wet hands, while standing in water or leaning against a metal object or pipeline. Keep cords away from cabinets or drawers.
- 23) Never remove chemicals from the laboratory.
- 24) Be alert to unsafe conditions, and report them to the supervisor so that corrective action will be taken.
- 25) Clean up lab bench area at the end of lab period. Do not leave contaminated or dirty glassware or tools in the work area.

Prevent accidents by using **common sense** and being **well-informed**. Read each experiment thoroughly before coming to the laboratory and follow directions carefully.

Your instructor will inform you weekly of specific safety hazards in each experiment. Pay strict attention to these warnings in addition to the above rules.