

IMSA Laboratory Safety Rules

Working in a science laboratory is normally very safe. To ensure your personal safety and the safety of others, you need to reduce the risks associated with laboratory work. Risk in the science lab can come from either physical or chemical hazards. By examining these hazards, you will understand why the following rules have been developed for working in scientific laboratories.

Chemical hazards result from exposure to hazardous chemicals from adsorption through the skin or eye contact, inhalation, ingestion, or injection. Physical hazards include falls, cuts, eye injury, electrical shock, and fire.

- 1) **Protect your eyes.** Appropriate eye protection must be worn **at all times** in the laboratory. Chemical splash goggles provide maximum protection from splashes. Contact lenses should not normally be worn unless approved by your advisor. Unventilated goggles are essential if contact lenses are worn.
- 2) **Wear appropriate protective clothing.** Chemicals can burn or irritate the skin. Some chemicals are readily absorbed through the skin and enter your body. Your clothing should cover your legs to the knees. Shorts are not appropriate for the laboratory. Laboratory coats or aprons can protect good clothing. Loose clothing should not be worn because it may dip into chemicals or fall into a flame and catch fire.
- 3) **Wear shoes that cover your feet.** Sandals and open-toed shoes do not protect your feet from broken glass that is sometimes found in science laboratories. Shoes must cover entire fore foot. Unacceptable shoes include, ballet flats, slippers, flip flops with socks, and clogs. Acceptable shoes include, athletic shoes, and boots, etc. Also, leather shoes protect your feet from chemical spills; canvas shoes do not.
- 4) **Do not apply cosmetics, eat, or drink in the laboratory.** These activities are ways by which you can accidentally ingest harmful chemicals. This includes no gum chewing.
- 5) **Do not taste any chemical. Ever.**
- 6) **Do not smell chemicals directly.** Smell a chemical only if your teacher specifically tells you to do so, then use your hand to fan the vapor to your nose.
- 7) **Do not pipette solutions by mouth.** Use a rubber suction bulb or other device to fill a pipette.
- 8) **Wash your hands with soap and water before leaving the laboratory.** This rule applies even if you have been wearing gloves.
- 9) **Know the hazards of the materials being used.** Read labels carefully to make sure you are using the right chemical. Know how to interpret data from a MSDS. Remember that hot and cold glassware look the same, so allow ample time for cooling.
- 10) **Tie back loose hair.** Dangling hair can fall into a chemical solution or experiment, or can catch on fire when working with an open flame.
- 11) **Know the safety equipment.** Know the location of eyewash fountains, safety showers, fire blankets, fire extinguishers, first-aid kits, and emergency exits.

- 12) Carry out only the experiments assigned by your teacher. Never perform unauthorized experiments.
- 13) Never remove chemicals from the laboratory, and remember to ALWAYS clean up after yourself!
- 14) Never work in the laboratory unless authorized to do so by staff. Never work alone in the laboratory. In case of a problem, you may need another person to prevent injury or to even save your life.
- 15) **Never engage in horseplay, games, or pranks in the laboratory.** Remember that the laboratory is a place for serious work. Careless behavior can endanger yourself and others and will not be tolerated.
- 16) **Demonstrate safe behavior.** Obey all safety instructions given by your instructor or found in your experimental procedure. Clean up spills immediately if you know how. If you are uncertain how to clean up a spill or if a large spill occurs, notify your instructor immediately. Before leaving the laboratory, return equipment and chemicals to their proper places. Clean up your work area.
- 17) Dispose of all waste materials according to the instructor. Any disposal needs can be addressed by Julie Polz, Lab Manager for the Science Dept.
- 18) **Report any accidents or unsafe conditions to the Julie Polz x 5478 or Security 5042 immediately.**