# AL-Mustaqbal University College

# Radiology Techniques Department

# First Class
# Practical General Chemistry

# First Lecture (Lab Safety)

# Glassware Safety

**1.** Do not use chipped or cracked glassware and show it to the teacher.

**2.** If a piece of glassware gets broken, do not try to clean it up by yourself. Notify the teacher.

**3.** Do not place hot glassware in water. Rapid cooling may make it shatter

**4.** When pouring liquids into glassware, make sure the container is not at the edge of the table.

**5.** Broken glassware should be disposed in a special glass disposal container.

# Chemical Safety

**1.** Always it must be know the chemicals that you are working with and the hazards may be causing.

**Material Safety Data Sheets (MSDS)** must be on file and available for each chemical in the lab.

**MSDS** lists:

- Product Identit
- Hazardous Ingredients
- Physical Data
- Fire & Explosion Hazard Data
- Reactivity Data
- Health Hazard Data

- Precautions for Safe Handling & Use
- Control Measures

**2.** Follow your teacher directions when using chemicals.

**3.** During lab work, keep your hands away from your face.

**4.** Never mix chemicals without your teacher telling to do.

**5.** Never put anything into your mouth during a lab experiment.

(***Never taste any chemicals***).

**6.** Never use mouth pipetting.

**7.** If you need to smell the odor of chemicals,

do not put your nose over the container and inhale the fumes.

**8.** When diluting acids **avoid** adding the water to the concentrated acid

(causing an explosion, which can splash acid on you).

Therefore, you must add acid slowly to water.

**9.** Notify your teacher if any spills or accidents happen.

**10.** Store chemicals on shelves with labeling the chemicals and solutions

**11.** Storage of flammable should not be open. They must be in the container labeled with warning.

**12.** Storage of corrosives like strong acids and bases should not be open.

**13.** After handling chemicals, always wash your hands with soap and water.

**14.** All chemical waste must be collected properly labeled and sent for appropriate disposal.

## *Heating Safety*

**1.** When heated the solution in a test tube it is very important to tilt it away from you to avoid inhaling fumes that coming from the solution.

**2.** Use tongs or protective gloves to handle hot objects.


**3.** When heating a test tube, move it around slowly over the flame to distribute the heat evenly.

**4.** Only glassware that is thoroughly dry should be heated.

**5.** Make sure no flammable solvents in the surrounding area when lighting a flame.

**6.** Turn off all heating apparatus, gas valves, and water faucets when not in use.

## *First Aid*


• It is important to know the correct way to act if an emergency does occur.

• It must be know the location of safety equipment, which available in the lab, including the **fire extinguisher**, **eyewash station** and **fire blanket**


# Types of Injuries

- ***Burns:***

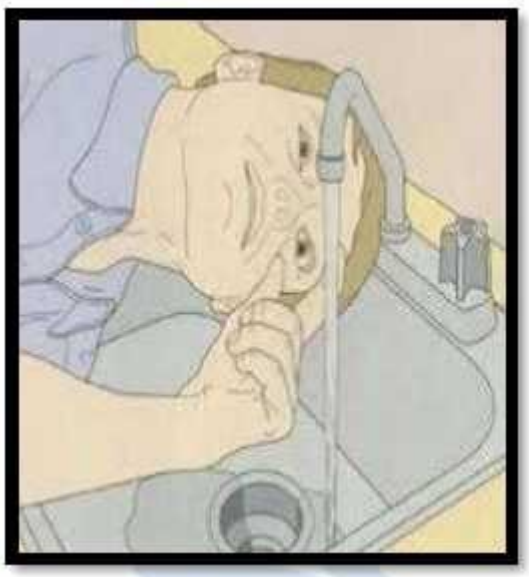
**To Do:** immediately flush with cold water until burning sensation is lessened.

- ***Cuts, bruises***

**To Do:** do not touch an open wound without safety gloves.
Pressing directly on minor cuts will stop bleeding in a few minutes.
Apply a coldcompress to bruises to reduce swelling.

- ***The Eyes***

**To Do:** flush eyes immediately with plenty of water for several minutes.
If a foreign object entered into the eye, do not allow the eye to be rubbed.



# Some of hazard signed