

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Practical of General Chemistry

Department :- Radiology Techniques

Class:1st year

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- Exp:. 1
- Name of experiment :.Lab Safety
- Purpose of experiment: Learn how to safety from glassware in the laboratory

Laboratory Glassware



1- Glassware safety :-

Glassware safety

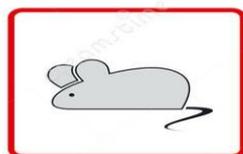


Laboratory glassware is specifically designed for scientific work. However, by design it is also fragile and can easily break and cause injuries in the process.

- A. Do not use chipped or cracked glassware and show it to the teacher.



- ✓ Precautions for Safe Handling & Use
- ✓ Control Measures
- B. Follow your teacher directions when using chemicals.
- C. During lab work, keep your hands away from your face.
- D. Never mix chemicals without your teacher telling to do.
- E. Never put anything into your mouth during a lab experiment. (Never taste any chemicals).



Animal hazard



Sharp instrument hazard



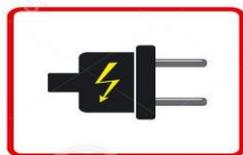
Heat hazard



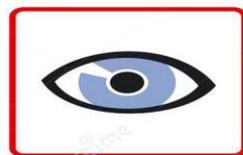
Glassware hazard



Chemical hazard



Electrical hazard



Eye & face hazard



Fire hazard



Biohazard



Laser radiation hazard



Radioactive hazard



Explosive hazard

- F. Never use mouth pipetting.
- G. If you need to smell the odor of chemicals, do not put your nose over the container and inhale the fumes.
- H. 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.

- I. Notify your teacher if any spills or accidents happen. 10. Store chemicals on shelves with labeling the chemicals and solutions
- J. Storage of flammable should not be open. They must be in the container labeled with warning.
- K. Storage of corrosives like strong acids and bases should not be open.
- L. After handling chemicals, always wash your hands with soap and water.
- M. All chemical waste must be collected properly labeled and sent for appropriate disposal.

3- Heating safety :-

- 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.
- Use tongs or protective gloves to handle hot objects.
- When heating a test tube, move it around slowly over the flame to distribute the heat evenly.
- Only glassware that is thoroughly dry should be heated.
- Make sure no flammable solvents in the surrounding area when lighting a flame.
- Turn off all heating apparatus, gas valves, and water faucets when not in use.

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



4- Type of injures :-

❖ 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

