

Experiment No: 01

Safety in the laboratory

Principles of safety:

Laboratory workers are exposed to many hazards. In the laboratory, there are many chemicals which are toxic, flammable, explosive, corrosive and carcinogenic. The essence of chemical safety is comprised in four principles.

- 1) Every chemical is hazardous without exception
- 2) Every accident announces that it will happen before it happens
- 3) If it might happen, it will happen eventually
- 4) Each person is individually and personally responsible for the safe use of chemicals

Laboratory safety guidelines:

1. Laboratory coat or apron must be worn which should be autoclaved.
2. Long sleeves must be worn at all time. If clothing ends above knee level then a lab coat must be worn.
3. Never eat, drink, smoke and chew gum or tobacco in a science laboratory or storage area.
4. Do not store food or beverages in the laboratory environment.
5. No sandals or open-toed shoes may be worn in the laboratory.
6. Safety glasses or goggles must always be worn in the laboratory
7. Gloves and other personal protective equipment should be used whenever
8. Don't attempt to make electrical repairs unless you are an electrician.
9. Remove any contaminated clothing and use a sink to wash the affected area.
10. If chemical splash on your skin then continue to flow the cold water in your skin at least 15 minutes.
11. Never pipette by mouth specially chemicals.
12. Wash hands before and after work in a science laboratory.
13. Do not store reagents and/or apparatus on lab bench and keep lab shelves organized.
14. Never place reactive chemicals (in bottles, beakers, flask, wash bottles etc.) near the edge of a lab bench.
15. Always inform co-workers of laboratory to carry out the hazardous work.
16. Record who worked with what, when, and how long in order to allow meaningful retrospective contamination studies.