

## 2. LABORATORY SAFETY EQUIPMENT

### 2.1. Fume Hoods:

- When handling toxic, volatile, odorous or flammable chemicals, you are required to work in a fume hood instead of your lab bench.



### 2.2. Safety Showers:

- Safety showers are used to extinguish fire, wash off hazardous substances from the skin of personnel.



### 2.3. Eye Wash Stations:

- Eye wash station are used to flush the eyes if hazardous substances are splashed into them.



### 2.4. Fire Extinguishers:

- Fire extinguishers are used to extinguish or control small-scale fire.



### 2.5. Fireproof Blankets:

- Fireproof blankets are used to wrap a burning victim or to control small-scale fire in the lab.



## 3. EMERGENCY MANAGEMENT

### 3.1 In the event of fire or other emergency, the following procedures apply:



- When you have fire on your clothes or body:
  - You should immediately either drop to the floor and roll or go to the emergency shower.
  - Once the fire is extinguished, chill any burns with cool water and seek medical attention.
- In case of a small-scale fire, use Fire Extinguisher or Fire blanket to extinguish or control it.
- In the event of a big fire/blaze in the lab:
  - Shout "Fire" to alert others and evacuate the room through the nearest safe exit ASAP.
  - Call 999 (Emergency), 3131 (Security), 4444 (fire) and the PI of the lab.
  - When Fire alarm is triggered, proceed quickly to the nearest exit.
  - Do not return to the building until the "All Clear" is given by the Security Manager.

### 3.2 Chemical spills:



- Establish what material has been spilled and what personal protective measures should be followed. This information can be obtained from a MSDS from the Chem Alert Database.
- Acids or Alkalis - first neutralize then absorb with paper towel, cloth or mop
- Mercury - cover with sulfur then remove with dustpan and placed it in a sealed container.



## Chemistry Basic Lab Safety

Doing Things SAFELY is not just the right way to work-It's the only way!



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Basic Lab Safety Guidelines is aimed to minimize or eliminate hazards in the Labs of Chemistry Department.



Knowing them before you enter Lab and abiding by these guidelines all times is critical!!!



## 1. PERSONAL SAFETY

### 1.1. Footwear and Clothing:

- Non-slip, closed-in footwear must be worn. Open footwear such as open-toed shoes is not allowed.
- Shorts or cutoffs must be covered.
- Thobe, Goutrah and loose clothing are not allowed in the lab.



- Lab coats, aprons, and other protective clothing should be worn when working in the lab.



### 1.2. Eye protection:

- Working in the lab would necessitate regular safety glasses or chemical safety goggles.

I should be wearing chemical safety goggles!



### 1.3. Hand protection:

- Gloves are required to protect your hands against abrasions, cuts, punctures, snags, chemical burns, thermal burns and temperature extremes in the work environment.



- Always wash your hands with soap and water before leaving the lab.



### 1.4. Chemical Safety:

- Wear protective goggles and a lab coat whenever heating or pouring hazardous chemicals.



- Do not undertake any work unless the appropriate safety precautions are adopted.

- Do Not put your nose over the container, waft the fumes toward your nose with one hand.



- Do not mouth pipette chemicals when transferring solutions. Instead, use a pipette bulb.



- Never taste any chemicals.
- Never pour water into a concentrated acid. Acid should be poured slowly into water.

### 1.5. Heating Safety:

- Never look into a container as you are heating it
- Never point the end of a test tube being heated at yourself or others
- Never heat in a closed container.

### 1.6. Safe Behavior:

- Do not engage in horseplay, pranks or other acts of mischief in a chemistry lab.



- Never eat or drink in the lab.



- Support all beakers and flasks with clamps. Do not use cracked or chipped glassware.

