

Chemistry laboratory rules and regulations.

Please read the following carefully. The room supervisor will go over these rules and regulations with you at the beginning of your work and it is up to you to make sure that you fully understand all that follows during this introduction. These regulations and rules are for your own safety and if followed by ALL will result in a safe laboratory environment.

How to “yours and others personal protection” :

How to work safe with powders;

Most of the chemical and mechanical handling will be on powders or introduce powders. To protect yourself from contaminating yourself and others remember that you have to use gloves, goggles, respiratory protection and a labcoat when working with powders. Powders can stick to your clothing, fingers and under your nails and finally end up in your mouth or nose and cause a chronic disease. This also applies when using sand paper on pellets or other solids.

How to work safe with disposable gloves;

The disposable glove is a personal safety measure against powders and other chemicals which can penetrate or irritate or burn the skin.

The glove protects when the chemicals are contained in a particular area the experimental area. When a glove has been in contact with chemicals it is forbidden to touch buttons and general tools in the laboratory wearing the polluted gloves! First dispose the contaminated gloves and take new clean gloves. If you don't, you may kill yourself or lab colleagues by spreading a toxic chemical.

How to protect your eyes;

Since eyes are specially vulnerable in the chemistry laboratory safety goggles must be worn at all times!

Eye injuries must be considered serious. The best procedure is immediate and prolonged flushing with water. Eyes must be forced open to be washed well. Make sure you know the locations of the eyewash stations.

How to protect your body;

Wear a labcoat to protect yourself. Bare feet or any type of open shoe or sandal can not be worn into the laboratory. As are short pants and short skirts.

When a person's clothing catches fire, the first thing to do is to throw that person to the floor and roll him/her so as to smother the flames quickly. Never let the person in a standing position; this procedure will prevent injury to the lungs and eyes by the flames which would naturally rise and envelop the head.

Never turn a fire extinguisher of any type on a person whose clothing is on fire which could cause eye injuries.

How to run an experiment :

How to work with chemicals;

Always know the chemicals you are working with and what to do in case of an accident or spillage. Check the materials safety and data sheet (MSDS) for any chemical you are using. Never take chemicals out of the lab. Keep the transportation to a minimum and transport in an appropriate container. Use the fume hood to work with chemicals. Reaction vessels and storage containers with chemicals and samples need proper labeling; name, compound name and date.

How to keep the lab safe and in good condition;

Always clean after working in the lab, either with chemicals or mechanical processes. Dispose razorblades, needles, sandpaper or other waste you have created. Store back all components and chemicals you have used. Clean the surfaces and leave everything as you found it. If you did not find it clean, inform the room supervisor.

How to dispose chemicals and waste;

Dispose used chemicals, by-products and obsolete experiments and polluted disposables in the correct manner! Do not pour them down the sink!!! Never dispose a chemical without checking how to dispose it to prevent accidents.

There are waste bins and containers for the following classes:

- I - Inorganic Acids in solution (HCl, HNO₃, H₂SO₄)
- II - Inorganic Bases in solution (NaOH, KOH, ammonia)
- III - Halogen free organic solvents (Acetone, Ethanol, Hexane)
- IV - Halogenated organic solvents (Chloroform, Dichloromethane)
- V - Heavy and Toxic metallic compounds in solution
- Black Bin - Chemical polluted paper and plastic
- Yellow Bin - Needles and razorblades.
- White Bin/Red cover - Solid waste chalcogenides (oxides, sulfides, selenides)
- White Bin - cracked or chipped glassware and polluted glass containers

How to manage time;

You are not allowed to work in the lab outside times regularly scheduled for your lab as there is no safety crew. Working in the lab after working hours, before 08:00 and after 18:00 and weekends, is expressly forbidden except for PhD students and senior staff and only when a second person is present within close distance (audible) when performing an experiment.

How to respond to fire;

Familiarize yourself with the location and proper use of the fire extinguishers. Should a fire alarm sound while you are working in the lab, turn off any heat source and leave the building by the nearest exit. Try to remain together as a group and await further instructions.