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ch216sp12syllabus: LAB SAFETY

Lab safety

Safety in the laboratory is a primary concern and failure to comply with safety rules and guidelines may result in loss of GSI points or even dismissal from lab. In order to proceed with complete safety in the lab you must know and understand what you are doing. Read and understand the chemistry before you start an experiment and be sure to ask questions if you do not understand.

Remember that most chemical substances you encounter outside the laboratory are in dilute, aqueous solution. In the laboratory you will be working with concentrated, pure chemical substances and using them in reactions. Refrain from touching your person while in the lab and work in the ventilation hood whenever possible. You should wash and dry your hands after working with compounds and at the end of each day. Good laboratory practice assumes your bench area, drawer, and hood are clean, neat and organized and that you have labeled all your flasks, test tubes and containers. Assume that every surface in the laboratory is contaminated and avoid leaning or resting on benchtops or hoods. Personal items such as cell phones, wallets or pencil cases should not be placed on the lab benches or handled with gloved hands.

You must always be cautious with hot and boiling liquids and whenever you are heating a liquid of any kind. You should never heat a flammable liquid in a beaker. Never look down the neck of a hot or heated vessel. Flasks, reaction containers and beakers should never be filled to capacity. Use disposable pipettes to transfer liquids and solutions.

Personal protective equipment (PPE) including safety glasses and laboratory aprons will be provided and should be worn at all times in the lab. Be sure to remove PPE, including gloves, when leaving the room to go to the Chemstand or bathroom. Remember that lab aprons only cover the front and exposed legs are still at risk from behind.

Appropriate clothing will minimize skin exposure while in the lab. Thus long pants and long sleeved shirts are recommended. Only closed toed shoes may be worn in the lab and long hair must be tied back. Students who are not appropriately dressed will be dismissed from lab.

Professional behaviour is expected in the lab. At all times:

- Remain alert. No headphones are permitted.
- Eating or drinking in the lab is strictly forbidden.
- Never remove chemicals from the lab.
- Do not enter a lab when the instructor is not present.
- No visitors are allowed in the labs.
- Dispose of all chemicals in a proper manner.
- Never pipette solutions by mouth.
- Do not sit on the lab benchtops or the floor.
- Always clean up after yourself - especially in common areas.
- Report any and all injuries immediately.

Lab waste disposal and cleanup

All waste should go into the proper solid waste bucket or liquid waste bottle.

- Solids go in the white buckets. Little-to-no solvent should be present.
- Liquids go into appropriately labeled bottles in the waste hood. Little-to-no undissolved solid should be present.
- Do not pour any solutions down the drain or place anything in the trash, which may have come in contact with chemicals.
- Gloves, pipettes and disposable vials should be disposed of in white buckets, not the trash.
- Empty and uncontaminated boxes and papers should go in the regular trash.

Keep your work area as well as all common areas around balances and melt-temps clean. Messes will result in a deduction of GSI points for the day.