Lab 1: Safety

Summary: Answer Key Concept questions on the lab manual, also sign and turn in the Lab Safety Regulation form. Due on 9/9/21.

* 1. What one piece of safety equipment must be worn at all times in the laboratory? - Goggles are a piece of safety equipment that must always be kept on in the lab.
  2. Give three reasons for this requirement. - They keep chemicals out of the eyes, keeps out material that could puncture the eye, and have UV protection.

1. What article(s) of clothing is(are) prohibited in the laboratory? Give a reason for each article of clothing you identify. - Closed-toed shoes because chemicals and other materials could fall on and harm your feet, short pants/ pants with holes because (worst case scenario) if chemicals fall on your clothes, you can quickly get washed and take off your clothes and the shower station, whereas not having the clothes covering you, the chemicals will spill straight on to your skin.
2. If you plan on working anywhere that OSHA regulates safety (that's every business in the US), do you think that its rules will vary? What is your team's evidence? - I think that every business that complies with OSHA’s regulations would have similar or even stricter lab safety standards, I do not have a team
3. What should your team do if a fire breaks out in the lab? Should your team try to fight the fire yourselves? Why should all of your team members ascertain the location of the fire extinguisher, just in case? - Immediately report it to the teacher, and then leave the classroom, do not try fighting it, everyone must know the location for the fire extinguisher in the case that the teacher or TA’s can’t reach them or you must protect yourself or others.
4. The person next to you thought it would be funny to splash around some sodium hydroxide solution and it got into your eyes, what should you do? What type of behavior would that person have been exhibiting? - If they did it, you should quickly go to the eye wash and tell the teacher. They are exhibiting horseplay.
5. What would happen if someone eating in lab accidentally had their food contaminated with a poison that were not aware was present in the lab? - Hopefully it was a harmless chemical substance, but if it was harmful in any way, they would most likely feel/taste something, and should immediately tell the teacher.
6. A fire is burning next to your team's bench but you are on the other side of the lab, should you get your backpack before you leave? Why or why not? - Do not do it because chemical fires are hard to control, and you staying in the lab longer than necessary could endanger you and others.
7. You've had a great idea for improving the lab you are doing, why should you not test it before you discuss it with your instructor? - We are not as smart as we think we are, and there may be a few safety or other issues that could be wrong with your experiment that the TA’s or teacher could catch.
8. One of your team members accidentally broke a beaker, if your team lets the TA's or instructor know, why is not your team going to be in trouble? Why might your team get in trouble for not reporting an accident? - It is normal for people to break stuff, and though it is not preferred, it is better to know of an accident than not. By not reporting the accident, you could endanger your own and your classmates due to the glassware and chemicals that the teacher and TA’s correctly know how to clean up.
9. What does your team think the instructor will do regarding horseplay in the lab? To whom should a student appeal the instructor's decision? Do you think they will support the instructor or a student who placed other students at risk? - You will most likely be dropped from the class, the Dean would be the place to appeal, though they will most likely support the teacher.
10. TRUE STORY: A student was careful to wear rubber gloves in lab to protect his hands from the chemicals in lab. When he went to the restroom, he didn't take the gloves off so that he didn't have to try to get them back on afterwards. What possible consequences did this student fail to consider? - He did not consider that there could have been chemicals on his hands that could have harmed more than just his skin.
11. What is the explanation of the second label above? - The chemical in question has a serious health hazard warning, a minimal hazard for fire, a moderate hazard for reactivity, and an oxidizer hazard.
12. What are two sources of chemical hazard information? Where can you find this information? - MSDS and SDSs are sources of chemical hazard information that can both be found online or in a filing cabinet in the library.
13. Where are the fire extinguishers, eyewashes and safety showers located in CH 201 and CH 203? - Because I have not gone to the lab yet, and this paper is due by the 8th, I cannot say for certain where it is, but usually, the eye wash and shower are both located next to the front side of the classroom near an exit and near where the teacher would usually sit/stand/do whatever they want. The fire extinguisher is usually located in the back of the classroom, near the teacher, or outside depending on the lab.