

Laney College Chemistry

Laboratory Rules and Safety Procedures

PERSONAL SAFETY

1. Safety glasses must be worn in the laboratory at all times.
2. Each student should learn where the fire extinguisher, eye wash fountain, shower, and first-aid kit are located.
3. If you splash any amount of acid or base in your eyes, or on your skin, immediately wash the affected area with plenty of water. Report the accident at once to the instructor.

USE OF CHEMICALS

4. Read all labels carefully before taking chemicals. To avoid contamination of chemicals, do not return unused chemicals to their bottles. Instead, dispose of excess chemicals by placing them in the designated waste containers, which are located in the fume hoods.
5. Organic solvents (benzene, acetone, ether, gasoline, etc.) are almost all highly flammable. Never work with organic solvents near an open flame.
6. Never pour water into concentrated acid. To dilute a concentrated acid, slowly add the acid to water while mixing the two. This applies especially to concentrated sulfuric acid.
7. Any spilled chemicals should be cleaned up immediately. If a strong acid is spilled, it can be neutralized by sprinkling sodium bicarbonate (baking soda) on it, and then it can be cleaned up.
8. Dispose of chemical waste in the designated containers, which are located in the fume hoods. Never place any chemicals in the sink or in the trash cans without your instructor's permission.

USE OF GLASSWARE

9. Be careful when heating glassware. Even Pyrex glassware can crack when it is heated. Material being heated in a test tube, flask, etc. may suddenly boil or react violently. Therefore, never point the mouth of a test tube at yourself or anyone else while you are

heating the test tube or carrying out a chemical reaction inside it.

10. Attempting to put a piece of glass tubing through a hole in a rubber stopper can be dangerous. Glass tubing should be moistened or lubricated with glycerin if this is to be done.
11. Clean up broken glassware immediately, and place the pieces in the designated broken glass box. A dust pan and broom are available in the laboratory.

USE OF BALANCES

12. Never weigh a chemical by putting it directly on the balance pan. Chemicals should be weighed inside a pre-weighed container so that all of the chemical can be easily removed from the balance.
13. Never weigh an object on the balance while that object is hot. Allow it to cool, then weigh it.

GENERAL LABORATORY RULES

14. Eating, drinking, and smoking are not permitted in the laboratory.
15. Any accidents or injuries that occur in the laboratory should be reported to the instructor at once.
16. Always follow the instructions, both oral and written, that are given before or during an experiment. Do not perform any unauthorized experiments.
17. Do not store any equipment in your locker except what is on your locker list unless your instructor tells you to do so.

Student Name _____
printed

Drawer _____
number/letter

Chemistry Laboratory Drawer Equipment Checklist

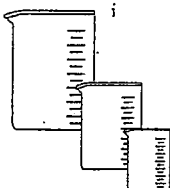
These items should be in your drawer:

Three (3) beakers (approx. volumes)
(glass)

___ one 400 mL (\$10)

___ one 250 mL (\$8)

___ one 150 mL (\$5)

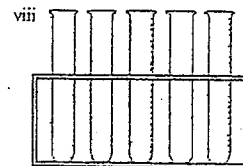


Glass Stirring Rod

___ one

Eight (8) Test Tubes

___ eight



Crucible (1) with Cover (porcelain)

___ one (\$5 crucible)

___ one (\$10 cover)



Test Tube Holder

___ one (\$5)



Evaporating Dish (porcelain)

___ one (\$10)



Test Tube Rack

___ one (\$10)

One (1) Florence Flask

___ one 250 mL (\$10)



Test Tube Brush

___ one (\$3)

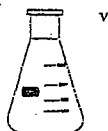
Two (2) Vials of Litmus Paper

___ one red

___ one blue

Two (2) Erlenmeyer Flasks (glass)

___ two 250 mL (\$5)



Watch Glass

___ one (\$4)



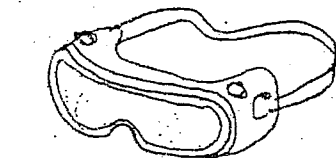
Funnel (glass)

___ one (\$8)



Safety Goggles

___ one (\$10)



Two (2) Graduated Cylinders (glass)

___ one 10 mL (\$10)

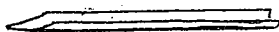
___ one 25 mL (\$15)

Medicine Dropper

___ one

Metal Scoop ("scoopula")

___ one



i Clipart from ACD labs, ChemSketch

ii

<http://classconnection.s3.amazonaws.com/601/flashcards/530601/fpp/p6061316227274194.jpg>

iii

<http://www.arthursclipart.org/science/science/evaporating%20dish.gif>

iv

<http://www.a-tech.com.hk/QUICKFIT/FLAT%20BOTTOM%20FLASK.jpg>

v

<http://ivyscientific.com/images/categories/FL-0055.jpg>

vi

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vii

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viii

http://www.art-saloon.ru/mini/item_4848.jpg

ix

http://www.expertsmind.com/CMSImages/1953_physics.png

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