BCH 303 Biochemistry of Proteins [Practical]

Lab (0) Introduction

Emtenan Mohammed Alkhudair

Office: Building 5, 3rd floor, Office No. 269
E.mail: ealkhudair@ksu.edu.sa
Website: http://fac.ksu.edu.sa/ealkhudair
Office hours: Wed 8-10:20, Thurs 8-9:05

Final exam, week 10 Feb 7th

Marks distribution

Tasks	Marks
Report	6
Quiz	5
Homework	3
Practical	2
Exam	14
Total	**30**

Course outline

- Qualitative and quantitative tests of amino acids
- Qualitative and quantitative test of proteins
- Protein extraction
- Protein purification
- Enzymes

Note: reports are delivered through e-mail as a pdf.

Writing a scientific report

The scientific reports should contain the following:

1. **Cover page:** Title, course number and students' name, university logo.
2. **Brief introduction:** [In this part you will write a background that will help to understand your topic] NEVER copy introduction from slide.
3. **Objectives:** [you will write it by your own words]
4. **Materials and method (Experimental):** [As in the lab sheet].
5. **Results:** This section states what you found, tables, graphs or calculations should be included.
6. **Discussion:**
   - In this section you are required to describe of **what happened** in the experiment [Principle].
   - Explain your results (reasons for **why** you get your results).
   - Make conclusions by comparing your results to **expected values**.
   - In case of unexpected results, justify or **explain** the reasons why you have obtained such results.
7. **References**

Endnote, Mendeley or Cite This For Me: Web Citer (*extension in Google Chrome*).

- **When writing a report, consider the following:**
  - Write **references**.
  - Write table/figure **legend** and **title**.
  - **Justify** the text.
  - **Font**: Times New Roman.
  - **Size**: title: 16 pt., subtitle: 14 pt. and body: 12 pt.
  - **Color**: Black

General Laboratory Safety

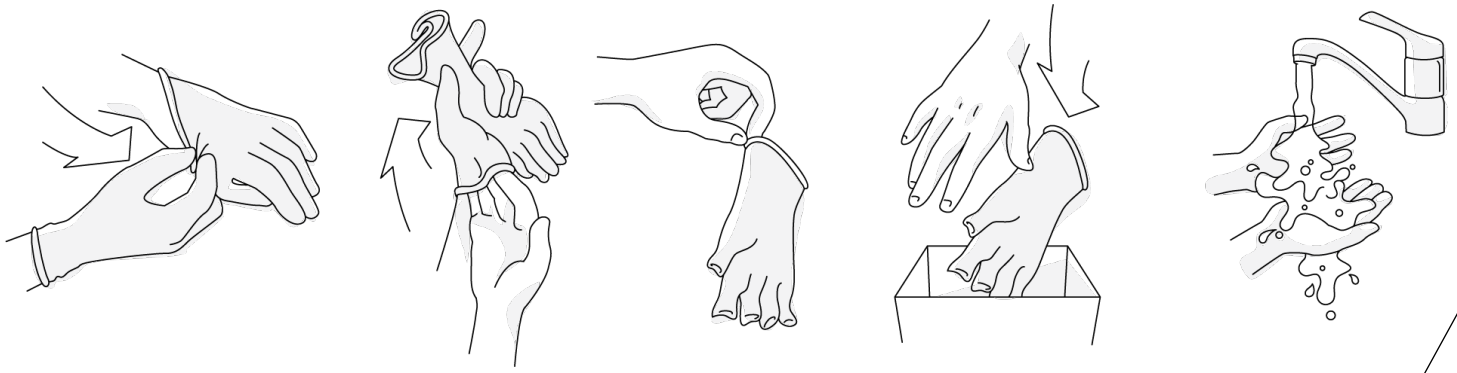
General consideration:

- Never leave the lab without informing the instructor.
- You must know all lab exits, eye washer, fire extinguisher, and first aid kit provided in the lab.
- Never eat, drink or chew gum in the lab. Do not taste, smell or touch any chemical.
- Tie your hair before doing an experiment.
- Closed-toed shoes should be worn at all times.
- Wash your hands with disinfectant soap after an experiment.
- Do not touch any electrical sources.

Protective personal equipment:

- Place your bag in the correct area.
- Protective gloves and glasses should be worn when handling hazardous materials.
- Lab coat should be worn at all times in the lab.
- Face mask should be worn when instructed.
- Protective glasses should be worn when using hazard chemicals.

The proper way of removing gloves:



Prior the experiment:

- Before start working, be sure to **label** the glassware.
- Glassware should be **clean** before using.

After the experiment:

- **Turn off** all the equipment, clean your work bench.
- Glassware must be cleaned and kept back **at the proper place.**

Dealing with chemicals:

- Consider all chemicals to be **hazardous**.
- Know what chemicals you are using and notice the **hazard symbols**.
- Carefully **read the label** twice before taking anything from a bottle.
- **Never point** a test tube that you are heating at yourself or your neighbour.
- You must work **at the hood** when dealing with a chemical with fumes.
- If chemicals come into contact with your skin or eyes, flush immediately with water and consult with your instructor.
- **Always** pour acids into water. If you pour water into acid, the heat of reaction will cause the water to explode into steam.
- **Close** all chemical bottles after finishing.
- Dispose chemicals **properly**.

Hazard symbols:

Information about chemicals:

Material Safety Data Sheet (MSDS) is a document that contains information on the potential hazards (health, fire, reactivity and environmental) and how to work safely with the chemical product. It also contains information on the use, storage, handling and emergency procedures all related to the hazards of the material.

ScienceLab.com
Chemicals & Laboratory Equipment

3 2 0

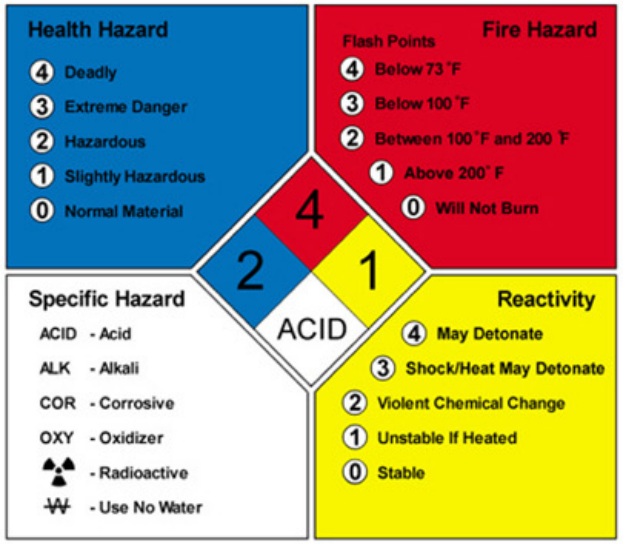
Health	2
Fire	3
Reactivity	0
Personal Protection	E

Material Safety Data Sheet
Ethyl alcohol 200 Proof MSDS

Section 1: Chemical Product and Company Identification

Product Name: Ethyl alcohol 200 Proof
Catalog Codes: SLE2248, SLE1357
CAS#: 64-17-5
RTECS: KQ6300000
TSCA: TSCA 8(b) inventory: Ethyl alcohol 200 Proof
CI#: Not applicable.
Synonym: Ethanol; Absolute Ethanol; Alcohol; Ethanol 200 proof; Ethyl Alcohol, Anhydrous; Ethanol, undenatured; Dehydrated Alcohol; Alcohol
Chemical Name: Ethyl Alcohol

Contact Information:
Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396
US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**
Order Online: ScienceLab.com
CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300
International CHEMTREC, call: 1-703-527-3887
For non-emergency assistance, call: 1-281-441-4400



(NFPA)

Class rules (Must follow!!)

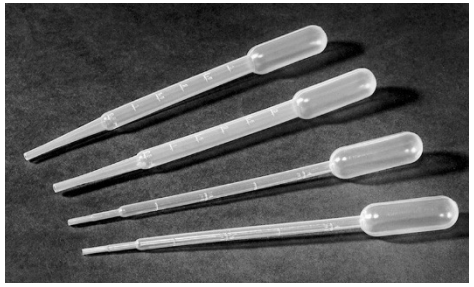
 You're more than welcome to ask questions/ seek for help.

 You're NEVER allowed to copy (assignments/quizzes and exams) from previous students.

 Respect the teacher and your classmates.

 Phones are not allowed during the class.

Glassware:

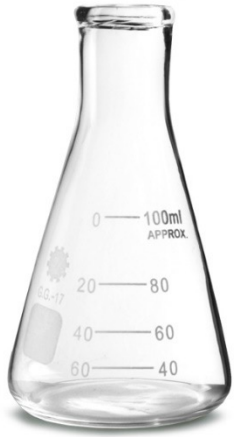


Pasteur pipette

Test tubes

Pipette

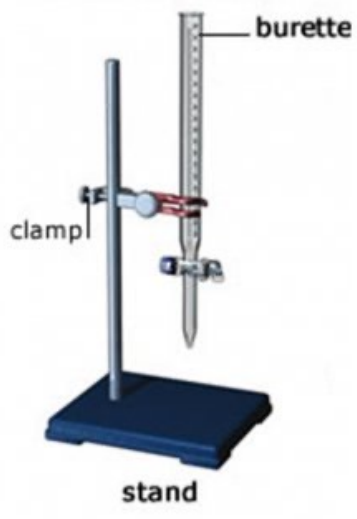
Pipette pump



Conical flask

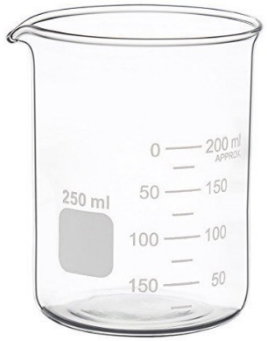
Cuvette

Glassware:



Burette

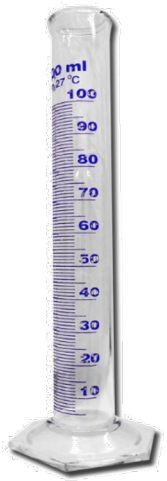
Reagent bottle



Beaker

Wash bottle

Volumetric flask



Measuring cylinder

Instrument:

Water bath

Spectrophotometer

Electronic balance