

# BIO 182 851 \*

## Laboratory Safety

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### Final Report

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Lesson	Laboratory Safety
Institution	Mohave Community College
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### Exercise 1

Data Table 1: Lab Safety Equipment Alternatives

Shower or Sink	Paper Towels	Well-Ventilated Area	No Substitution
Eyewash Station	Towel	Fume Hood	Fire Extinguisher
Lab Shower	Cotton Wipes	Exhaust	Safety Goggles
Tap Water	Napkins	Safety Cabinet	First Aid Kit
Water Bottle	Cloth	Window	Spill Containment Kit

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### Exercise 2

Data Table 2: Sodium Hypochlorite SDS information

Items	SDS Information
Physical State	Yellow liquid
Route of Exposure & Symptoms	Route exposure consists of, direct contact with skin, eye, inhaling, ingesting, Tract infection, respiratory irritation
Protective Equipment	Face Shield, Gloves, Boots, Full Suit
First Aid Procedures	Flush eyes with water for a minimum of 15 minutes in case of contact. The same procedures must be done for skin aswell. the only difference is you must remove contaminated clothing and shoes. move to fresh air environment if inhaled. if Ingestion takes place, you must not proceed to vomit unless otherwise told so
Fire-fighting Measures	chlorine is release when heated about 35 degrees Celsius. The substance should not harm you.
Chemical Reactivity	non reactive towards glass, but can be reactive to metals
Safe Storage	Store in light resistant and tightly sealed containers
Safe Disposal	mix with lots of water and flush
Environmental/ Ecotoxicity	can easily decompose in the environment
Spill Cleanup Procedures	Must mop up and dilute with water, or soak up with dry material. Be sure to place in specified waste container

## Exercise 3

### 1. What are small-scale techniques?

Small-scale techniques are colleges who conduct simple experiments

### 2. List 5 precautions that must be taken before beginning an experiment.

5 Precautions that must be taken before beginning an experiment are:

1. Keep safety equipment easily accessible
2. Read and follow correct protocol
3. Be sure to wear proper PPE such as lab coat and other equipment
4. Proof read the experiment to get a brief overview of your experiment.
5. Keep a well ventilated room for a clean safe environment

### 3. As indicated in the video, what common substance can be used to neutralize a spilled acid?

To neutralize spilled acid, you must use sodium carbonate.

### 4. According to the video, why should a used chemical container never be refilled?

Reuse or refill of a used chemical container is highly dangerous and can result to a defilement of the fluid or compound reactivity.

5. Certain glass objects are not meant to be heated and could shatter if exposed to a heat source. What two examples of heat-sensitive glassware are given in the video?

The two examples of heat sensitive glassware are cylinders or flask.

## Exercise 4

Data Table 3: Part 1 and Part 2 of the Safety Contract

Part	Agreement
<b>Part 1:</b> It is impossible to control students' use of HOL Science products, related kits, and students' work environments. The author(s) of HOL Science content, the instructors and institutions that adopt it, and Hands-On Labs, Inc. - the publisher and producer of HOL Science - authorize the use of these educational products only on the express condition that the purchasers and users accept full and complete responsibility for all and any liability related to their use of same. Please review this document several times until you are certain you understand and will fully abide by its terms.	I agree: <div>X</div>
<b>Part 2:</b> I am a responsible adult who has read, understands, and agrees to fully abide by all safety precautions prescribed in HOL Science labs for laboratory work and for the use of HOL Science kits. Accordingly, I recognize the inherent hazards associated with science experimentation; I will always experiment in a safe and prudent manner; and I unconditionally accept full and complete responsibility for any and all liability related to my purchase and/or use of a science HOL Science kit or any other science products or materials provided by Hands-On Labs, INC.	I agree: <div>X</div>