MSDS HAZARD INFORMATION

1. Concentrated sulfuric acid

Section 3. Hazards Identification
Potential Acute
Health Effects
Potential Chronic
Health Effects
Extremely hazardous in case of skin contact (corrosive), of eye contact (irritant), of ingestion. Very hazardous in
case of skin contact (irritant, permeator). Hazardous in case of inhalation. Slightly hazardous in case of skin
contact (sensitizer). Liquid or spray mist may produce tissue damage particularly on mucous membranes of
eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce
severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe
over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching.
Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.
The substance is toxic to lungs, mucous membranes.
Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged
contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged
exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.
Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in
one or many human organs.

3. 30% hydrogen peroxide

HAZARDS IDENTIFICATION

Emergency Overview

Form : liquid
Color : colourless
Odor : stinging

Hazard Summary : Oxidizer. Heating may cause an explosion. Contact with combustible material may cause fire. Corrosive. Causes severe burns. Harmful by inhalation and if swallowed. Do not swallow. Do not breathe vapours or spray mist. Do not get in eyes, on skin, or on clothing.

Potential Health Effects

Skin : Corrosive.
Causes severe skin burns.

Eyes : Corrosive.
Causes eye burns.
May cause irreversible eye damage.
May cause corneal injury.
Causes blurred vision.

Ingestion : Harmful if swallowed.
Corrosive.
Ingestion causes burns of the upper digestive and respiratory tracts. Effects due to ingestion may include:
Abdominal pain
vomiting
nausea

Inhalation : Corrosive.
Harmful by inhalation.
Inhalation may cause pneumonitis, pulmonary edema.
Strong irritating effect on the respiratory tract and the lungs.

Chronic Exposure : Confirmed animal carcinogen with unknown relevance to humans.

Target Organs : Eyes
Skin
Respiratory system

OSHA Questions:

4. ***Chronic effects***: An adverse effect on a human or animal body, with symptoms which develops slowly over a long period of time or which recur frequently

Example: Radiation poisoning

Acute effects: An adverse effect on a human or animal which has severe symptoms developing rapidly and coming quickly to a crisis

Example: Chemical, food poisoning

5. **Definitions:**

Corrosive- a substance that causes visible destruction or permanent changes in human skin tissue at the point of contact

Irritant- a chemical, which is not corrosive, but which causes a reversible Inflammatory effect on living tissue by chemical action at the point of contact

Highly toxic- a concentration of any toxic substance that poses an immediate threat to life or would cause irreversible or delayed adverse health effects

Sensitizer- a substance which on first exposure causes little or no reaction but which on repeated exposure may cause a marked response not necessarily limited to the contact site. Skin sensitization is the most common form of sensitization.

Toxic- a substance (chemical agent, etc) that causes a harmful effect on some biological mechanism

Carcinogen- a substance or agent capable of causing cancer in mammals, including humans

Hand protection : Protective gloves
Gloves must be inspected prior to use.
Replace when worn.

Skin and body protection : Wear as appropriate:
Rubber or plastic apron
Rubber or plastic boots
If splashes are likely to occur, wear: Complete suit protecting against chemicals

This information would be useful to inform students of the potential hazards associated with 30% hydrogen peroxide and to explain to them why they should be wearing eye goggles, gloves, aprons, etc while handling the chemical, and to use caution during procedures to prevent accidental spillage, exposure, etc.

Hydrogen peroxide available in local pharmacies/drug stores is only 3% stabilized hydrogen peroxide.

7) Clothing should be protected with an apron. It should not be overly loose-fitting so as to present a flammable hazard when working with the chemical.

8) Goggles or face shield should have protective side shields, giving complete protection to the eyes.

9) Students should be asked to leave the laboratory if their behavior is disruptive, if they are not following correct safety procedures regarding compliance with protective eye, hand and body protection, proper handling of chemicals, and appropriate clean-up and storage of materials following their use.

10) Yes, students can wear contact lenses. First, because they are needed to correct or improve the student's vision and also because, along with the wearing of protective goggles, they actually provide some protection to the eye.

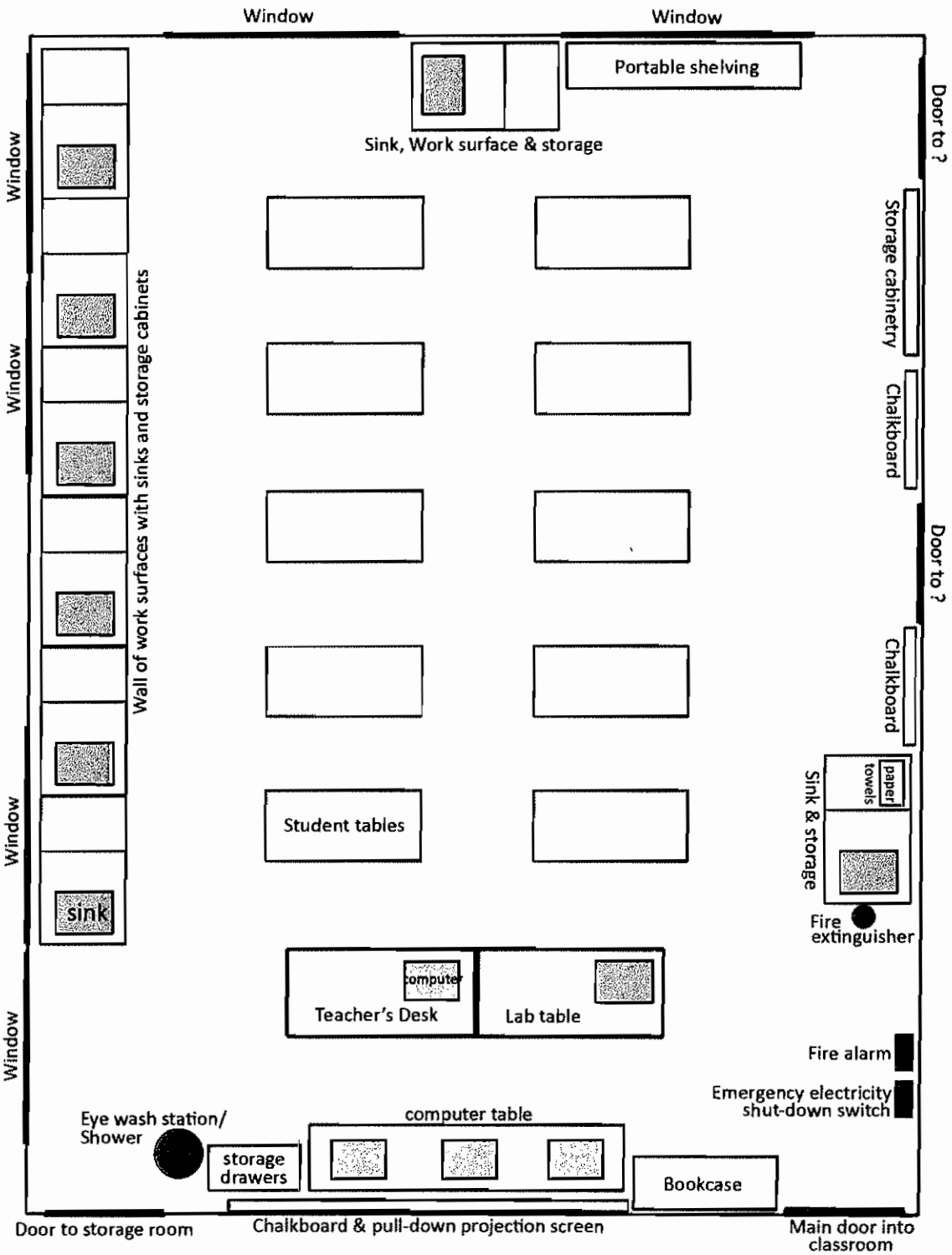
11) If A. a student broke a beaker and cut their finger ...
rinse the finger under water, remove any glass from wound, if possible, and apply pressure to the wound ... and send to the school nurse

B. chemicals have splashed on a student's face ...
have the student close their eyes, lead them to the eye wash station and help them to thoroughly rinse their eyes and face ... and notify the school nurse to come to the classroom

C. the fire alarm sounds ...
look about the room to see if you can determine the source/location of the combustion triggering the alarm ... then evacuate the room quickly ... if site of fire is obvious, use fire extinguisher to extinguish flames

D. a student's lab manual has caught on fire ...
attempt to extinguish flames by smothering it in some fashion ... or drop it into nearest sink and turn on the water to extinguish flame

12) **Classroom/Lab Schematic**



Mercury Spill Kit, Receptacle for chemical waste, and MSDS Sheets – In chemistry storage room

Fire Blanket and Acid/Base Neutralization Kit – Not in this classroom but in others

Electrical outlets fused? YES

Receptacle for broken glass and Receptacle for biological waste – In storage room off