

Name: _____ Date: _____

Sizzling Safety: The Lab Simulation Challenge for Sophomores

Risk assessment, SDS interpretation, and emergency response—identifying safe practices ensures every experiment concludes without a catastrophic failure.

1. A student accidentally splashes a concentrated salt solution into their eyes. What is the standard minimum duration for using the eyewash station?

- A. 5 minutes
- B. 10 minutes
- C. 15 to 20 minutes
- D. Until the stinging stops

2. You are tasked with diluting a concentrated acid with distilled water. What is the safest technique to prevent a thermal reaction or splashing?

- A. Pour the water into the acid slowly
- B. Add the acid to the water slowly
- C. Mix both simultaneously in a beaker
- D. Shake the container vigorously after mixing

3. When working with volatile organic compounds that produce harmful vapors, the experiment must be conducted inside a _____.

- A. Convection oven
- B. Fume hood
- C. Safety cabinet
- D. Laminar flow bench

4. If a piece of glassware has a small 'star crack' at the bottom, it is still safe to use as long as you do not heat it over a Bunsen burner.

- A. True
- B. False

5. Which specific document provides detailed information about a chemical's physical properties, hazards, and first-aid measures?

- A. The Lab Manual
- B. The Periodic Table
- C. The Safety Data Sheet (SDS)
- D. The Textbook Appendix

6. If a person's clothing catches fire, the best immediate action is to 'Stop, Drop, and Roll' or use a _____.

- A. Fire blanket

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- B. Fire extinguisher
- C. Wet paper towel
- D. Lab apron

7. Personal eyeglasses provide sufficient protection against chemical splashes in a high school chemistry lab.

- A. True
- B. False

8. When heating the contents of a test tube, in which direction should the mouth of the tube be pointed?

- A. Toward the ceiling
- B. Toward yourself to observe changes
- C. Away from yourself and others
- D. Toward the nearest sink

9. Biological waste, such as used petri dishes or swiped Q-tips, should be disposed of in a _____.

- A. Standard trash can
- B. Chemical waste jug
- C. Recycling bin
- D. Biohazard bag or container

10. Long hair should be tied back and loose jewelry should be removed before starting a lab involving open flames or moving parts.

- A. True
- B. False