

Total Score: _____ Date Evaluated: _____

Module 1: Introduction & Right to Know Chemical Safety

Name _____

Position _____

PI or Lab Supervisor _____

Department _____

Phone Number _____

Email Address _____

1. The NDSU laboratory policy is all unattended laboratories must be **locked**.
 - a. True
 - b. False
2. Based on NDSU laboratory policy, you **may work alone** in the laboratory under which of the following conditions:
 - a. If you are doing "desk work." For example, you are studying, reading or doing calculations in the laboratory.
 - b. If you have made arrangements to have someone periodically stop by your laboratory and check to make sure you are safe (buddy system).
 - c. If you are conducting experiments known to be hazardous.
 - d. If you have consulted with the Principal Investigator (Professor) or the Laboratory Supervisor of the laboratory to determine when two persons are required in the laboratory.
 - e. a and b.
 - f. a, b, and d.
 - g. All of the above.
3. In the case of an emergency, attend to medical needs and have someone contact Emergency Services at 911, University Police at 1-8998 or _____ at 1-7759.
4. MSDS is an acronym for _____. This document gives information about a chemical. It states the specific characteristics of the chemical such as its corrosivity, toxicity, reactivity and flammability. You must have access to this document and understand the safety hazards of the material before you begin working with the chemical.

5. Compressed gas cylinders used in laboratories must be _____ to a laboratory bench, wall or other strong structure.
6. _____ are a class of compounds with a chemical structure of H-O-O-R or R-O-O-R. They form in isopropyl ether, diethyl ether, tetrahydrofuran and other ethers. These compounds build up over time and may cause violent reactions such as explosions. Some signs of contamination in ethers include formation of crystals, visible discoloration of ether and layering or separating of liquid.
7. Concerning transfer of flammables, use a safety can, bond safety can to drum by bonding cables and keep away from electric outlets and other ignition sources.
 - a. True
 - b. False
8. Work surfaces such as bench tops, hood working surfaces, etc., where toxic substances are used must be covered with stainless steel or plastic _____ or must be covered with dry absorbent plastic backed paper.
9. Mouth pipetting is allowed for low toxicity chemicals.
 - a. True
 - b. False
10. The NFPA - National Fire Protection Association - Hazard Class designation color of yellow stands for
 - a. Flammability
 - b. Health
 - c. Reactivity
 - d. Special Hazards
11. The NFPA - National Fire Protection Association - Hazard Class designation color of red stands for
 - a. Flammability
 - b. Health
 - c. Reactivity
 - d. Special Hazards
12. The NFPA - National Fire Protection Association - Hazard Class designation color of blue stands for
 - a. Flammability
 - b. Health
 - c. Reactivity
 - d. Special Hazards

13. The NFPA - National Fire Protection Association - Hazard Class designation color of white stands for
 - a. Flammability
 - b. Health
 - c. Reactivity
 - d. Special Hazards

14. If a chemical had a NFPA label with a "4" in the red diamond, it means that
 - a. Reactivity hazard is very low.
 - b. Flammability hazard is very high.
 - c. Health hazard is high.
 - d. Flammability hazard is very low.

15. If a chemical had a NFPA label with a "OX" in the white diamond, it means that
 - a. It is an oxidizer and must not be mixed with organic chemicals.
 - b. It is an acronym for other than flammable xylenes.
 - c. It is water reactive and must be stored away from water.

16. To observe that air is entering the fume hood, one may tape a piece of paper to the edge of the fume hood sash.
 - a. True
 - b. False

17. Long pants and closed toe footwear that resists chemical spills must be worn in the laboratory.
 - a. True
 - b. False
 - c.

18. It is recommended to wash hands for _____ seconds before leaving the laboratory.

19. Concerning injuries and first aid, if serious or life threatening injuries have occurred, immediately call _____ or call 1-8998 University Police for assistance.

20. Concerning use of the eye wash, in the event of a chemical splash to the eyes, quickly start eyewash, hold eyes open while rinsing, rinse for at least _____ minutes and notify laboratory staff.

21. To activate the safety shower, you must _____.

22. Safety equipment located in or near the laboratory may include
- a. Safety shower
 - b. Eye wash
 - c. Fire blanket
 - d. Fire extinguisher
 - e. all of the above
 - f. none of the above
23. For a major chemical spill or toxic spill, you must leave the laboratory unless you have been trained in safe clean up procedures.
- a. True
 - b. False
24. You must notify the Associate Director of Environmental Health and Safety with the details of a major chemical spill or toxic spill.
- a. True
 - b. False
25. For minor chemical spills, a written summary of the spill details must be forwarded to the Safety Office.
- a. True
 - b. False