Registration Form

Laboratory Safety CEU Training Course $75.00

48 HOUR RUSH ORDER PROCESSING FEE ADDITIONAL $40.00

Start and Finish Dates:_____ *You will have 90 days from this date in order to complete this course*

Name_____Signature_____
(This will appear on your certificate as above)

Address:_____

City_____State_____Zip_____Email_____

Phone:
Home ( )_____Work ( )_____Fax ( )_____

Operator
ID#_____Expiration_____

Please circle which certification you are applying the course CEU's.
Water Treatment Water Distribution Wastewater Collection Pretreatment

Wastewater Treatment Other _____

Your certificate will be mailed to you in about two weeks.

Technical Learning College
Western Campus
PO Box 420, Payson AZ 85547-0420
(928) 468-0665 Fax (928) 272-0747
Toll Free (866) 557-1746
info@tlch2o.com

3 digit code on back of card_____

American Express
Visa or MasterCard #_____Exp. Date_____

If you've paid on the Internet, write your customer#_____

Referral's Name _____


NTU METER

Lab Safety Answer Key Name

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Please mail or fax this with your final exam

LAB SAFETY CEU TRAINING COURSE
CUSTOMER SERVICE RESPONSE CARD

DATE:_____

NAME:_____

ADDRESS:_____

E-
MAIL_____PHONE_____

PLEASE COMPLETE THIS FORM BY CIRCLING THE NUMBER OF THE APPROPRIATE ANSWER IN THE AREA BELOW.

1. Please rate the difficulty of your course.
   Very Easy 0 1 2 3 4 5 Very Difficult

2. Please rate the difficulty of the testing process.
   Very Easy 0 1 2 3 4 5 Very Difficult

3. Please rate the subject matter on the exam to your actual field or work.
   Very Similar 0 1 2 3 4 5 Very Different

4. How did you hear about this Course?_____

5. What would you do to improve the Course?

_____

_____

_____

_____

Any other concerns or comments.

_____

_____

Laboratory Safety CEU Training Assignment

You will have 90 days to successfully complete this assignment.

All of the following questions are True or False. You will need to get 70% or better in order to pass this course. Please e-mail your answers along with a registration form to info@tlch2o.com or fax the answers to (928) 272-0747.

If you need any assistance, utilize the Search function in Adobe Acrobat.

1. Action level means a concentration designated in 29 CFR part 1910 for a specific substance, calculated as a ten (10)-hour time-weighted average, which initiates certain required activities such as exposure monitoring and medical surveillance.
A. True
B. False

2. Chemical Hygiene Officer means an employee who is designated by OSHA, and who is qualified by training or experience, to provide technical guidance in the development and implementation of the provisions of the Chemical Hygiene Plan. This definition is intended to place limitations on the position description or job classification that the designated individual shall hold within the employer's organizational structure.
A. True
B. False

3. Chemical Hygiene Plan means a written program developed and implemented by the employee which sets forth procedures, equipment, personal protective equipment and work practices that (i) are not capable of protecting employers from the health hazards presented by hazardous chemicals used in that particular workplace and (ii) meets the requirements of paragraph (e) of this section.
A. True
B. False

4. Combustible liquid means any liquid having a flashpoint at or above 90 [degrees]F (37.8 [degrees]C), but below 100 [degrees]F (93.3 [degrees]C), except any mixture having components with flashpoints of 200 [degrees]F (93.3 [degrees]C), or higher, the total volume of which make up 75 percent or more of the total volume of the mixture.
A. True
B. False

5. Chemical hygiene officer(s), whose appointment is not essential and who must: Monitor procurement, use, and disposal of paper used in the lab.
A. True
B. False

6. Chemical hygiene officer(s), whose appointment is essential and who must: See that appropriate audits are maintained.
A. True
B. False

7. Chemical hygiene officer(s), whose appointment is essential and who must: Help project directors develop precautions and adequate facilities.
A. True
B. False

8. Chemical hygiene officer(s), whose appointment is essential and who must: Know the current legal requirements concerning illegal substances.
A. True
B. False

9. Chemical hygiene officer(s), whose appointment is essential and who must: Seek ways to improve the recycling program.
A. True
B. False

10. Laboratory supervisor, who has overall responsibility for chemical hygiene in the laboratory including responsibility to: Ensure that workers know and follow the chemical hygiene rules that protective equipment is available and in working order, and that appropriate training has been provided.
A. True
B. False

11. Laboratory supervisor, who has overall responsibility for chemical hygiene in the laboratory including responsibility to: Provide regular, formal chemical hygiene and housekeeping inspections including routine inspections of emergency equipment.
A. True
B. False

12. Laboratory supervisor, who has overall responsibility for chemical hygiene in the laboratory including responsibility to: Know the current legal requirements concerning regulated substances.
A. True
B. False

13. Laboratory supervisor, who has overall responsibility for chemical hygiene in the laboratory including responsibility to: Determine the required levels of protective apparel and equipment.
A. True
B. False

14. Laboratory supervisor, who has overall responsibility for chemical hygiene in the laboratory including responsibility to clone sheep.
A. True
B. False

15. Laboratory supervisors ensure that facilities and training for use of any material being ordered are adequate.
A. True
B. False

16. Project director or director of other specific operations, who has primary responsibility for management procedures and hiring for that operation is also usually responsible for safety and training.
A. True
B. False

17. Laboratory worker, who is responsible for: Planning and conducting each operation in accordance with the institutional chemical hygiene procedures; and developing good personal character habits.
A. True
B. False

18. The laboratory facility should have: An appropriate general ventilation system with air intakes and exhausts located so as to avoid intake of contaminated air.
A. True
B. False

19. The laboratory facility should have adequate, well-ventilated; restrooms and break areas.
A. True
B. False

20. The laboratory facility should have Laboratory ranges and ovens.
A. True
B. False

21. Other safety equipment required includes body fountains and shower caps.
A. True
B. False

22. The laboratory facility should have: Arrangements for waste disposal.
A. True
B. False

23. Maintenance. Chemical-hygiene-related equipment (hoods, incinerator, etc.) should undergo continuing appraisal and be modified if inadequate.
A. True
B. False

24. Ventilation -- General laboratory ventilation -- This system should: Provide a source of air for breathing and for input to local ventilation devices. It should be relied on for protection from non-toxic substances released into the laboratory; ensure that laboratory air is continually replaced, preventing increase of air concentrations of non-toxic substances during the working day; and direct air flow into the laboratory from laboratory areas and out to the exterior of the building .
A. True
B. False

25. Hoods. A laboratory hood with 2.5 linear feet of hood space per person should be provided for every 2 workers if they spend most of their time working with chemicals; each hood should have a continuous monitoring device to allow convenient confirmation of adequate hood performance before use. If this is not possible, work with substances of unknown toxicity should be avoided or other types of local ventilation devices should be provided.
A. True
B. False

26. Other local ventilation devices. Ventilated storage cabinets, canopy hoods, snorkels, etc. should be provided as needed. Each canopy hood and snorkel should have a separate exhaust duct.
A. True
B. False

27. Special ventilation areas. Exhaust air from restrooms and isolation rooms should not be passed through scrubbers or other treatment before release into the regular employee system.
A. True
B. False

28. Cold rooms and warm rooms should have provisions for rapid escape and for escape in the event of management failure.
A. True
B. False

29. Modifications. Any alteration of the ventilation system should be made only if thorough testing indicates that worker protection from airborne toxic substances will continue to be adequate.
A. True
B. False

30. Performance. Rate: 4-12 room air changes/hour is normally adequate general ventilation if local exhaust systems such as hoods are used as the primary method of control.
A. True
B. False

31. Quality. General air flow should not be turbulent and should be relatively uniform throughout the laboratory, with no high velocity or static areas; airflow into and within the hood should not be excessively turbulent; hood face velocity should be adequate (typically 60-100 lfm).
A. True
B. False

32. Evaluation. Quality and quantity of ventilation should be evaluated on installation, regularly monitored (at least every 15 months), and reevaluated whenever a change in local ventilation devices is made.
A. True
B. False

33. Procurement. Before a substance is received, information on proper handling, storage, and disposal should not be known to those who will be involved.
A. True
B. False

34. Procurement. Every container should be accepted without an adequate identifying label.
A. True
B. False

35. Procurement. Preferably, all substances should be received in different locations for security reasons.
A. True
B. False

36. Compressed gas means: A gas or mixture of gases having, in a container, an absolute pressure exceeding 70 psi at 40 [degrees]F (21.1 [degrees]C);
A. True
B. False

37. Flashpoint means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when tested as follows: Pensky-Martens Closed Tester (see American National Standard Method of Test for Flash Point by Pensky-Martens Closed Tester, Z11.7-1979 (ASTM D 93-79))-for liquids with a viscosity equal to or greater than 45 SUS at 100[degrees]F (37.8[degrees]C), or that contain suspended solids, or that have a tendency to form a surface film under test;
A. True
B. False

38. Flashpoint means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when tested as follows: Setaflash Closed Tester (see American National Standard Method of Test for Flash Point by Setaflash Closed Tester (ASTM D 3278-78)).
A. True
B. False

39. Organic metals, which undergo autoaccelerating thermal decomposition, are excluded from any of the flashpoint determination methods specified above.
A. True
B. False

40. Hazardous chemical means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic systems, and agents which damage the lungs, skin, eyes, or mucous membranes.
A. True
B. False

41. Appendices A and B of the Hazard Communication Standard (29 CFR 1910.1200) provide further guidance in defining the scope of health hazards and determining whether or not a chemical is to be considered hazardous for purposes of this standard.
A. True
B. False

42. Laboratory means a facility where the "laboratory use of hazardous chemicals" occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis.
A. True
B. False

43. Laboratory scale means work with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one person. "Laboratory scale" excludes those workplaces whose function is to produce commercial quantities of materials.
A. True
B. False

44. Laboratory-type hood means a device located in a laboratory, enclosure on five sides with a moveable sash or fixed partial enclosed on the remaining side; constructed and maintained to draw air from the laboratory and to prevent or minimize the escape of air contaminants into the laboratory; and allows chemical manipulations to be conducted in the enclosure without insertion of any portion of the employee's body other than hands and arms.
A. True
B. False

45. Walk-in microscopes require that the sashes are adjusted during use so that the airflow and the exhaust of air contaminants are compromised and employees do work inside the enclosure during the release of airborne hazardous chemicals.
A. True
B. False

46. Laboratory use of hazardous chemicals means handling or use of such chemicals in which all of the following conditions are met: Chemical manipulations are carried out on a "***laboratory scale***;"
A. True
B. False

47. Laboratory use of hazardous chemicals means handling or use of such chemicals in which all of the following conditions are met: Multiple chemical procedures or chemicals are used;
A. True
B. False

48. Laboratory use of hazardous chemicals means handling or use of such chemicals in which all of the following conditions are met: The procedures involved are not part of a production process, nor in any way simulate a production process;
A. True
B. False

49. Laboratory use of hazardous chemicals means handling or use of such chemicals in which all of the following conditions are met: "Primate laboratory practices and equipment" are not available and in common use to minimize the potential for employee exposure to hazardous chemicals.
A. True
B. False

50. Medical consultation means a consultation which takes place between an employee and a licensed physician for the purpose of determining what medical examinations or procedures, if any, are appropriate in cases where a significant exposure to a hazardous chemical may have taken place.
A. True
B. False

51. Organic peroxide means an organic compound that contains the bivalent - O - O - structure and which may be considered to be a structural derivative of hydrogen sulfide where one or both of the hydrogen atoms has been replaced by an organic radical.
A. True
B. False

52. Oxidizer means a chemical other than a blasting agent or explosive as defined in § 1910.109(a), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of hydrogen or other gases.
A. True
B. False

53. Physical hazard means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.
A. True
B. False

54. Protective laboratory practices and equipment means those laboratory procedures, practices and equipment accepted by laboratory health and safety experts as effective, or that the employer can show to be effective, in minimizing the potential for employee exposure to hazardous chemicals.
A. True
B. False

55. Reproductive ions means chemicals which affect the reproductive capabilities including chromosomal damage (mutations) and effects on fetuses (teratogenesis).
A. True
B. False

56. Select carcinogen means any substance which meets one of the following criteria: It is regulated by EPA as a carcinogen;
A. True
B. False

57. Select carcinogen means any substance which meets one of the following criteria: (ii) It is listed under the category, "known to be carcinogens," in the Annual Report on Carcinogens published by the National Toxicology Program (NTP) (latest edition);
A. True
B. False

58. Select carcinogen means any substance which meets one of the following criteria: (iii) It is listed under Group 1 ("***carcinogenic to humans***") by the International Agency for Research on Cancer Monographs (**IARC**) (latest editions);
A. True
B. False

59. Select carcinogen means any substance which meets one of the following criteria: (iv) It is listed in either Group 2A or 2B by IARC or under the category, "reasonably anticipated to be carcinogens" by NTP, and causes statistically significant tumor incidence in experimental animals in accordance with any of the following criteria: After inhalation exposure of 6-7 hours per day, 5 days per week, for a significant portion of a lifetime to dosages of less than 10 ug 3.
A. True
B. False

60. Select carcinogen means any substance which meets one of the following criteria: (iv) It is listed in either Group 2A or 2B by IARC or under the category, "reasonably anticipated to be carcinogens" by NTP, and causes statistically significant tumor incidence in experimental animals in accordance with any of the following criteria: After repeated skin application of less than 300 (ug/kg of body weight) per week; or
A. True
B. False

61. Select carcinogen means any substance which meets one of the following criteria: (iv) It is listed in either Group 2A or 2B by IARC or under the category, "reasonably anticipated to be carcinogens" by NTP, and causes statistically significant tumor incidence in experimental animals in accordance with any of the following criteria: (C) After oral dosages of less than 50 ug/kg of body weight per day.
A. True
B. False

62. Stable means a chemical which is the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.
A. True
B. False

63. Gas-reactive means a chemical that reacts with gas to release water that is either flammable or presents a health hazard.
A. True
B. False

64. Permissible exposure limits. For laboratory uses of OSHA regulated substances, the employer shall assure that laboratory employees' exposures to such substances do exceed the permissible exposure limits specified in 29 CFR part 1910, subpart Z.
A. True
B. False

65. Employee exposure determination -- (1) Final monitoring. The employer shall measure the employee's exposure to any substance regulated by a standard which requires monitoring if there is reason to believe that exposure levels for that substance routinely exceed the action level (or in the absence of an action level, the PEL) when the employee has expired.
A. True
B. False

66. Periodic monitoring. If the initial monitoring prescribed by paragraph (d)(1) of this section discloses employee exposure over the action level (or in the absence of an action level, the PEL), the employer shall immediately comply with the exposure monitoring provisions of the relevant standard.
A. True
B. False

67. Termination of monitoring. Monitoring may be terminated in accordance with the relevant standard.
A. True
B. False

68. Employee notification of monitoring results. The employer shall, within 15 working days after the receipt of any monitoring results, notify the employee of these results in writing either individually or by posting results in an appropriate location that is accessible to employees.
A. True
B. False

69. Where hazardous chemicals as defined by this standard are used in the workplace, the employer shall develop and carry out the provisions of a written Chemical Hygiene Plan which is: (i) Capable of protecting employees from health hazards associated with hazardous chemicals in that laboratory.
A. True
B. False

70. Where hazardous chemicals as defined by this standard are used in the workplace, the employer shall develop and carry out the provisions of a written Chemical Hygiene Plan which is: (ii) Capable of keeping exposures below the limits specified in paragraph (c) of this section. The Chemical Hygiene Plan shall be readily available to employees, employee representatives and, upon request, to the Assistant Secretary.
A. True
B. False

71. Where hazardous chemicals as defined by this standard are used in the workplace, the employer shall develop and carry out the provisions of a written Chemical Hygiene Plan which is: The Chemical Hygiene Plan shall include each of the following elements and shall indicate specific measures that the employer will take to ensure laboratory employee protection:
A. True
B. False

72. Where hazardous chemicals as defined by this standard are used in the workplace, the employer shall develop and carry out the provisions of a written Chemical Hygiene Plan which is: Standard operating procedures relevant to safety and health considerations to be followed when laboratory work involves the use of hazardous chemicals;
A. True
B. False

73. Where hazardous chemicals as defined by this standard are used in the workplace, the employer shall develop and carry out the provisions of a written Chemical Hygiene Plan which is: Criteria that the employer will use to determine and implement control measures to reduce employee exposure to hazardous chemicals including engineering controls, the use of personal protective equipment and hygiene practices; particular attention shall be given to the selection of control measures for chemicals that are known to be extremely non-hazardous;
A. True
B. False

74. Where hazardous chemicals as defined by this standard are used in the workplace, the employer shall develop and carry out the provisions of a written Chemical Hygiene Plan which is: A requirement that fume hoods and other protective equipment are functioning poorly and specific measures that shall be taken to ensure proper and inadequate performance of such equipment;
A. True
B. False

75. The employer shall review and evaluate the effectiveness of the Chemical Hygiene Plan at least monthly and update it as necessary.
A. True
B. False

76. Employee information and training -- The employer shall provide employees with false information and training to ensure that they are unaware of the hazards of chemicals present in their work area.
A. True
B. False

77. Employee information and training. -- Such information shall be provided at the time of an employee's initial assignment to a work area where hazardous chemicals are present and prior to assignments involving new exposure situations. The frequency of refresher information and training shall be determined by the employer.
A. True
B. False

78. Employees shall be informed of: The contents of the OSHA Lab Safety Standard and its appendices which shall be made available to employees.
A. True
B. False

79. Employees shall be informed of: (ii) The location and availability of the employer's Chemical Hygiene Plan;
A. True
B. False

80. Employees shall not be informed of: The permissible exposure limits for EPAs regulated substances or recommended exposure limits for other hazardous chemicals where there is applicable OSHA standard.
A. True
B. False

81. Employees shall be informed of: Signs and symptoms associated with exposures to hazardous chemicals used in the laboratory.
A. True
B. False

82. Employees shall be informed of: The location and availability of known reference material on the hazards, safe handling, storage and disposal of hazardous chemicals found in the laboratory including, but not limited to, Material Safety Data Sheets received from the chemical supplier.
A. True
B. False

83. Training. Employee training shall include: Methods and observations that may be used to detect the presence or release of a hazardous chemical (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.).
A. True
B. False

84. Training. Employee training shall include: The physical and health hazards of l drinking alcohol in the work area;
A. True
B. False

85. Training. Employee training shall include: The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.
A. True
B. False

86. Training. Employee training shall not include: The employee shall be trained on the applicable details of the employer's written Chemical Hygiene Plan.
A. True
B. False

87. Medical consultation and medical examinations. (1) The employer shall provide all employees who work with hazardous chemicals an opportunity to receive medical attention, including any follow-up examinations which the examining physician determines to be necessary.
A. True
B. False

88. Medical consultation and medical examinations. Whenever an employee develops signs or symptoms associated with a hazardous chemical to which the employee may have been exposed in the laboratory, the employee shall be provided an opportunity to receive an appropriate medical examination.
A. True
B. False

89. Medical consultation and medical examinations. Where exposure monitoring reveals an exposure level routinely above the action level (or in the absence of an action level, the PEL) for an OSHA regulated substance for which there are exposure monitoring and medical surveillance requirements, medical surveillance shall be established for the affected employee as prescribed by the particular standard.
A. True
B. False

90. Medical consultation and medical examinations. Whenever an event takes place in the work area such as a spill, leak, explosion or other occurrence resulting in the likelihood of a hazardous exposure, the affected employee shall be provided an opportunity for a medical consultation. Such consultation shall be for the purpose of determining the need for a medical examination.
A. True
B. False

91. Medical consultation and medical examinations. All medical examinations and consultations shall be performed by or under the direct supervision of a licensed physician and shall be provided without cost to the employee, without loss of pay and at a reasonable time and place.
A. True
B. False

92. Information provided to the physician. The employer shall provide the following information to the physician: The identity of the hazardous chemical(s) to which the employee may have been exposed; and have the physician taste the chemical too.
A. True
B. False

93. Information provided to the physician: A description of the conditions under which the exposure occurred including quantitative exposure data, if available.
A. True
B. False

94. Information provided to the physician: A description of the signs and symptoms of feelings and emotions that the employee is experiencing, if any.
A. True
B. False

95. Physician's written opinion. (i) For examination or consultation required under this standard, the physician shall obtain a written opinion from employer the examining which shall include the following: Any recommendation for further medical and mental examination.
A. True
B. False

96. Nurse’s written opinion. (i) For examination or consultation required under this standard, the employer shall obtain a written opinion from the examining nurse which shall include the following: The results of the medical examination and any associated tests.
A. True
B. False

97. Physician's written opinion. (i) For examination or consultation required under this standard, the employer shall obtain a written opinion from the examining physician which shall include the following: Any medical condition which may be revealed in the course of the examination which may place the employee at increased risk as a result of exposure to a hazardous chemical found in the workplace; and A statement that the employee has been informed by the physician of the results of the consultation or medical examination and any medical condition that may require further examination or treatment.
A. True
B. False

98. Physician's written opinion. (i) For examination or consultation required under this standard, the employer shall obtain a written opinion from the examining physician which shall include the following: The written opinion shall not reveal specific findings of diagnoses unrelated to occupational exposure.
A. True
B. False

99. Hazard identification. With respect to labels and material safety data sheets: Employers shall not ensure that labels on incoming containers of hazardous chemicals are removed or defaced.
A. True
B. False

100. Hazard identification. With respect to labels and material safety data sheets: Employers may maintain any material safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are not accessible to laboratory employees.
A. True
B. False

101. Hazard identification. With respect to labels and material safety data sheets: The following provisions shall apply to chemical substances developed in the laboratory: If the composition of the chemical substance which is produced exclusively for the laboratory's use is known, the employer shall determine if it is a hazardous chemical as defined in paragraph (b) of this section. If the chemical is determined to be hazardous, the employer shall provide appropriate training as required under paragraph (f) of this section.
A. True
B. False

102. Hazard identification. With respect to labels and material safety data sheets: If the chemical substance is produced for another user outside of the laboratory, the employer shall comply with the Hazard Communication Standard (29 CFR 1910.1200) including the requirements for preparation of material safety data sheets and labeling.
A. True
B. False

103. Use of respirators. Where the use of respirators is necessary to maintain exposure above permissible exposure limits, the employer shall provide, at wholesale cost to the employee, the proper respiratory equipment. Respirators may be selected and used in accordance with the requirements of 29 CFR 1910.134.
A. True
B. False

104. Recordkeeping. The employer may establish and maintain for each employee an accurate record of any measurements taken to monitor employee exposures and any medical consultation and examinations including tests or written opinions required by a medical expert.
A. True
B. False

105. Recordkeeping. The employer shall establish and maintain for each employee an accurate record of any measurements taken to monitor employee exposures and any medical consultation and examinations including tests or written opinions required by this standard. The employer shall assure that such records are kept, transferred, and made available in accordance with 29 CFR 1910.20.
A. True
B. False

106. Recordkeeping. (1) The employer shall establish and maintain for each employee an accurate record of any measurements taken to monitor employee exposures and any medical consultation and examinations including tests or written opinions required by this standard. Start-up dates. (i) Employers shall have developed and implemented a written Chemical Hygiene Plan no later than January 31, 1991. Paragraph (a)(2) of this section shall not take effect until the employer has developed and implemented a written Chemical Hygiene Plan.
A. True
B. False

107. Compressed gas means: A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 [degrees]F (54.4 [degrees]C) regardless of the pressure at 70 [degrees]F (21.1 [degrees]C); or
A. True
B. False

108. Compressed gas means:) A vapor having a liquid pressure exceeding 400 psi at 100 [degrees]F (37.8 [degrees]C) as determined by ASTM D-323-72.
A. True
B. False

109. Designated area means an area which may be used for work with "select carcinogens," reproductive toxins or substances which have a high degree of acute toxicity.
A. True
B. False

110. Emergency means any occurrence such as, but is limited to, equipment failure, rupture of containers or failure of control equipment which results in a controlled release of a hazardous chemical into the workplace.
A. True
B. False

111. Environment means a chemical release that causes a change in a laboratory workplace which may expose hazardous chemicals to staff.
A. True
B. False

112. Explosive means a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.
A. True
B. False

113. Flammable means a chemical that falls into one of the following categories: Aerosol, flammable means an aerosol that, when tested by the method described in 16 CFR 1500.45, yields a flame protection exceeding 18 feet at full valve opening, or a flashback (a flame extending back to the person) at any degree of valve opening.
A. True
B. False

114. Flammable means a chemical that falls into one of the following categories:(ii) Gas, flammable means: A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of 13 percent by volume or less.
A. True
B. False

115. Flammable means a chemical that falls into one of the following categories: (B) A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than 12 percent by volume, regardless of the lower limit.
A. True
B. False

116. (iii) Liquid, flammable means any liquid having a flashpoint below 100 [degrees]F (37.8 [degrees]C), except any mixture having components with flashpoints of 50[degrees]F (37.8 [degrees]C) or higher, the total of which make up 86 percent or more of the total volume of the mixture.
A. True
B. False

117. Flammable means a chemical that falls into one of the following categories: (iv) Solid, flammable means a solid, other than a blasting agent or explosive as defined in § 1910.109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard.
A. True
B. False

118. A chemical shall be considered to be a flammable gas if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.
A. True
B. False

119. Flashpoint means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when tested as follows: Tagliabue Closed Tester (See American National Standard Method of Test for Flash Point by Tag Closed Tester, Z11.24-1979 (ASTM D 56-79))-for liquids with a viscosity of less than 45 Saybolt Universal Seconds (SUS) at 100[degrees]F (37.8[degrees]C), that do not contain suspended solids and do not have a tendency to form a surface film under test.
A. True
B. False

120. Provide adequate ventilation. The best way to increase exposure to airborne substances is to prevent their escape into the working atmosphere by use of fans and other ventilation devices.
A. True
B. False

121. Institute a chemical hygiene program. A mandatory chemical hygiene program designed to minimize exposures is needed; it should be a regular, continuing effort, not merely a standby or short-term activity. Its recommendations should be followed in academic teaching laboratories as well as by full-time laboratory workers.
A. True
B. False

122. Observe the IDLH and PPM. The Permissible Exposure Limits of OSHA and the Threshold Limit Values of the American Conference of Governmental Industrial Hygienists should not be exceeded.
A. True
B. False

123. Chemical hygiene officer(s), whose appointment is essential and who must: Work with administrators and other employees to develop and implement appropriate chemical hygiene policies and practices.
A. True
B. False

124. Stockrooms/storerooms. Toxic substances should be segregated in a well-identified area with local exhaust ventilation.
A. True
B. False

125. Stockrooms/storerooms Chemicals which are non-toxic or other chemicals whose containers have not been opened should be in breakable secondary containers.
A. True
B. False

126. Stockrooms/storerooms Stored chemicals should be examined periodically (at least daily) for replacement, deterioration, and container integrity.
A. True
B. False

127. Stockrooms/storerooms should not be used as preparation or repackaging areas, should be open during normal working hours, and should be controlled by one person.
A. True
B. False

128. Distribution. When chemicals are hand carried, the container should be placed in an outside container or bucket. Freight-only elevators should be used if possible.
A. True
B. False

129. Laboratory storage. Amounts permitted should be as small as practical. Storage on bench tops and in hoods is inadvisable. Exposure to heat or direct sunlight should be avoided. Periodic inventories should be conducted, with unneeded items being discarded or returned to the storeroom/stockroom.
A. True
B. False

130. Environmental Monitoring: Regular instrumental monitoring of airborne concentrations is not usually justified or practical in laboratories but may be appropriate when testing or redesigning hoods or other ventilation devices or when a highly toxic substance is stored or used regularly (e.g., 3 times/week) .
A. True
B. False

131. Housekeeping, Maintenance, and Inspections: Cleaning. Floors should be cleaned regularly.
A. True
B. False

132. Housekeeping, Maintenance, and Inspections: Inspections. Formal housekeeping and chemical hygiene inspections should be held at least quarterly for units which have frequent personnel changes and semiannually for others; informal inspections should be continual.
A. True
B. False

133. Maintenance. Eye wash fountains should be inspected at intervals of not less than 12 months.
A. True
B. False

134. Maintenance. Respirators for routine use should be inspected periodically by the laboratory janitor.
A. True
B. False

135. Maintenance. Safety showers should be tested routinely by the rookie lab tech.
A. True
B. False

136. Maintenance. Other safety equipment should be inspected regularly. (e.g., every 3-6 months)
A. True
B. False

137. Maintenance. Procedures to prevent restarting of out-of-service equipment should be established.
A. True
B. False

138. Passageways. Stairways and hallways should not be used as storage areas. Access to exits, emergency equipment, and utility controls should never be blocked.
A. True
B. False

139. Routine surveillance. Anyone whose work involves regular and frequent handling of toxicologically significant quantities of a chemical should consult a qualified physician to determine on an individual basis whether a regular schedule of medical surveillance is desirable.
A. True
B. False

140. First aid. Personnel trained in first aid should be available during weekends and an emergency room with medical personnel should be available to reach for advice by telephone.
A. True
B. False

141. Protective Apparel and Equipment -- These should include for each laboratory: Protective apparel compatible with the required degree of protection for substances being handled.
A. True
B. False

142. Protective Apparel and Equipment: These should include for each laboratory: An easily accessible group use shower.
A. True
B. False

143. Protective Apparel and Equipment: These should include for each laboratory: An eyewash removal device.
A. True
B. False

144. Protective Apparel and Equipment: These should include for each laboratory: A fire extinguisher.
A. True
B. False

145. Protective Apparel and Equipment: These should include for each laboratory: Respiratory protection, fire alarm and telephone for emergency use should be available nearby.
A. True
B. False

146. Records: Accident records should be written and retained for keeping undesirable employees in the pickle barrel.
A. True
B. False

147. Records: Chemical Hygiene Plan records should document that the facilities and precautions were compatible with current knowledge and regulations.
A. True
B. False

148. Medical records should be retained by the institution in accordance with the requirements of state and federal regulations.
A. True
B. False

149. Signs and Labels: Prominent signs and labels of the following types should be posted: Emergency telephone numbers of emergency personnel/facilities, supervisors, and laboratory workers.
A. True
B. False

150. Signs and Labels: Prominent signs and labels of the following types should be posted -- Identity labels, showing contents of containers (including waste receptacles) and associated hazards.
A. True
B. False

151. Signs and Labels: Prominent signs and labels of the following types should be posted: Location signs for safety showers, eyewash stations, other safety and first aid equipment, exits and areas where food and beverage consumption and storage are permitted.
A. True
B. False

152. Signs and Labels: Prominent signs and labels of the following types should be posted; Warnings at areas or equipment where special or unusual hazards exist.
A. True
B. False

153. Spills and Accidents: A written emergency plan should not be established and communicated to all personnel; it should not include procedures for ventilation failure, evacuation, medical care, reporting, and drills.
A. True
B. False

154. Spills and Accidents: A written emergency plan should be established and communicated to all personnel; There should be an alarm system to alert people in all parts of the facility including isolation areas such as cold rooms.
A. True
B. False

155. Spills and Accidents: A written emergency plan should be established and communicated to all personnel; A spill control policy should be developed and should include consideration of prevention, containment, cleanup, and reporting.
A. True
B. False

156. Spills and Accidents: A written emergency plan should be established and communicated to all personnel; All accidents or near accidents should be carefully analyzed with the results distributed to all who might benefit.
A. True
B. False

157. Information and Training Program: Aim: To assure that all individuals at risk are inadequately informed about the work in the laboratory, its risks, and what to do if an accident occurs.
A. True
B. False

158. Emergency and Personal Protection Training: Every laboratory worker should know the location and proper use of available protective apparel and equipment.
A. True
B. False

159. Some of the full-time personnel of the laboratory should be trained in the proper use of emergency equipment and procedures.
A. True
B. False

160. Emergency and Personal Protection Training: Every laboratory worker should know the location and proper use of available protective apparel and equipment. Receiving and stockroom/storeroom personnel should know about hazards, handling equipment, protective apparel, and relevant regulations.
A. True
B. False

161. Emergency and Personal Protection Training: Every laboratory worker should know the location and proper use of available protective apparel and equipment. Frequency of Training: The training and education program should be a regular, continuing activity -- not simply an annual presentation.
A. True
B. False

162. Waste Disposal Program: Aim: To assure that maximum harm to people, other organisms, and the environment will result from the proper disposal of waste laboratory chemicals.
A. True
B. False

163. Waste Disposal Program: Content: The waste disposal program should specify how waste is to be collected, segregated, stored, and transported and include consideration of what materials can be incinerated. Transport from the institution must be in accordance with OSHA regulations.
A. True
B. False

164. Waste Disposal Program: Discarding Chemical Stocks: Labeled containers of chemicals and solutions should undergo prompt disposal; if partially used, they should be opened.
A. True
B. False

165. Waste Disposal Program: Before a worker's employment in the laboratory ends, chemicals for which that person was responsible should be eaten or returned for a refund.
A. True
B. False

166. Waste Disposal Program: Frequency of Disposal: Waste should be removed from laboratories to a central waste storage area at least once per year and from the central waste storage area at irregular intervals.
A. True
B. False

167. Method of Disposal: Wildcat dumping is an environmentally acceptable manner that is the most practical disposal method for combustible laboratory waste.
A. True
B. False

168. Method of Disposal: Indiscriminate disposal by pouring waste chemicals down the drain or adding them to mixed refuse for landfill burial is acceptable .
A. True
B. False

169. Method of Disposal: Hoods should be used as a means of disposal for volatile chemicals.
A. True
B. False

170. Method of Disposal: Disposal by recycling or chemical decontamination should not be used when possible.
A. True
B. False

171. The following should be used for essentially all laboratory work with chemicals: Accidents and spills -- Eye Contact: Promptly flush eyes with acid for a prolonged period (15 minutes) and seek medical attention.
A. True
B. False

172. The following should be used for essentially all laboratory work with chemicals: Ingestion: Encourage the victim to drink large amounts of caustic soda.
A. True
B. False

173. The following should be used for essentially all laboratory work with chemicals: Skin Contact: Promptly flush the affected area with water and remove any contaminated clothing. If symptoms persist after washing, seek medical attention.
A. True
B. False

174. The following should be used for essentially all laboratory work with chemicals: Clean-up. Promptly clean up spills, using appropriate protective apparel and equipment and proper disposal.
A. True
B. False

175. The following should be used for essentially all laboratory work with chemicals: If unsure, first smell or taste chemicals.
A. True
B. False

176. The following should be used for essentially all laboratory work with chemicals: Vent apparatus which may discharge toxic chemicals (vacuum pumps, distillation columns, etc.) into local exhaust devices.
A. True
B. False

177. The following should be used for essentially all laboratory work with chemicals: Inspect gloves and test glove boxes before use.
A. True
B. False

178. The following should be used for essentially all laboratory work with chemicals: Do not allow release of toxic substances in cold rooms and warm rooms, since these have contained recirculated atmospheres.
A. True
B. False

179. The following should be used for essentially all laboratory work with chemicals: Choice of chemicals: Use only those chemicals for which the quality of the available ventilation system is appropriate.
A. True
B. False

180. The following should be used for essentially all laboratory work with chemicals: Eating, smoking, etc.: Avoid eating, drinking, smoking, gum chewing, or application of cosmetics in areas where laboratory chemicals are present; wash hands before conducting these activities.
A. True
B. False

181. The following should be used for essentially all laboratory work with chemicals: Avoid storage, handling or consumption of food or beverages in storage areas, refrigerators, glassware or utensils which are also used for laboratory operations unless you are responsible.
A. True
B. False

182. Equipment and glassware: Handle and store laboratory glassware with care to avoid costs; use damaged glassware to save costs.
A. True
B. False

183. Equipment and glassware: Use extra care with Dewar flasks and other evacuated glass apparatus; shield or wrap them to contain chemicals and fragments should implosion occur. Use equipment only for its designed purpose.
A. True
B. False

184. Exiting: Wash areas of exposed skin well with H_2SO_4 before leaving the laboratory.
A. True
B. False

185. Horseplay: Practical jokes or other behavior which might confuse, startle or distract another worker but does break up the dull routine.
A. True
B. False

186. Mouth suction: Use mouth suction for pipeting or starting a siphon if vacuum is not available.
A. True
B. False

187. Personal apparel: Confine long hair and loose clothing. Wear shoes at all times in the laboratory but do not wear sandals, perforated shoes, or sneakers.
A. True
B. False

188. Personal housekeeping: Keep the work area clean and uncluttered, with chemicals and equipment being properly labeled and stored; clean up the work area on completion of an operation or at the end of each day.
A. True
B. False

189. Personal protection: Assure that appropriate eye protection is worn by all persons, including visitors, where chemicals are stored or handled.
A. True
B. False

190. Wear appropriate gloves when the potential for contact with toxic materials exists; inspect the gloves before each use, wash them before removal, and replace them periodically.
A. True
B. False

191. Use appropriate respiratory equipment when water contaminant concentrations are sufficiently restricted by engineering controls, inspecting the respirator before use.
A. True
B. False

192. The use of contact lenses in the laboratory is acceptable; if they are used, do not inform supervisor so special precautions can be taken.
A. True
B. False

193. Removing laboratory coats after significant contamination depends on the contamination.
A. True
B. False

194. Planning: Seek information and advice about hazards, plan appropriate protective procedures, and plan positioning of equipment before beginning any new operation.
A. True
B. False

195. Unattended operations: Leave lights on, place an appropriate sign on the door, and provide for containment of toxic substances in the event of failure of a utility service (such as cooling water) to an unattended operation.
A. True
B. False

196. Use of hood: Use the hood for operations which might result in release of toxic chemical vapors or dust is not necessary if a window is open.
A. True
B. False

197. As a rule of thumb, use a hood or other local ventilation device when working with any appreciably volatile substance with a TLV of less than 50 ppm.
A. True
B. False

198. Confirm adequate hood performance before use; keep hood closed at all times except when adjustments within the hood are being made; keep materials stored in hoods to a minimum and do not allow them to block vents or air flow.
A. True
B. False

199. Leave the hood "**on**" when it is not in active use if toxic substances are stored in it or if it is uncertain whether adequate general laboratory ventilation will be maintained when it is "**off**".
A. True
B. False

200. Waste disposal: Assure that the plan for each laboratory operation includes plans and training for waste disposal.
A. True
B. False

You are finished with your assignment.

Thank you for your business.