Registration Form

Hazard Communication CEU 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 ( )_____

License or
Operator ID#_____Expiration_____
Your certificate will be mailed to you in about two weeks.

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

Wastewater Treatment HAZWOPER Other _____

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, please write your Customer #_____

Referral's Name_____

Hazard Communication Course Assignment

Name **Telephone**

1. A B C D E
2. A B C D E
3. A B C D E
4. A B C D E
5. A B C D E
6. A B C D E
7. A B C D E
8. A B C D E
9. A B C D E
10. A B C D E
11. A B C D E
12. A B C D E
13. A B C D E
14. A B C D E
15. A B C D E
16. A B C D E
17. A B C D E
18. A B C D E
19. A B C D E
20. A B C D E
21. A B C D E
22. A B C D E
23. A B C D E
24. A B C D E
25. A B C D E
26. A B C D E
27. A B C D E
28. A B C D E
29. A B C D E
30. A B C D E
31. A B C D E
32. A B C D E
33. A B C D E
34. A B C D E
35. A B C D E
36. A B C D E
37. A B C D E
38. A B C D E
39. A B C D E
40. A B C D E
41. A B C D E
42. A B C D E
43. A B C D E
44. A B C D E
45. A B C D E
46. A B C D E
47. A B C D E
48. A B C D E
49. A B C D E
50. A B C D E
51. A B C D E
52. A B C D E
53. A B C D E
54. A B C D E
55. A B C D E
56. A B C D E
57. A B C D E
58. A B C D E
59. A B C D E
60. A B C D E
61. A B C D E
62. A B C D E
63. A B C D E
64. A B C D E
65. A B C D E
66. A B C D E
67. A B C D E
68. A B C D E
69. A B C D E
70. A B C D E
71. A B C D E
72. A B C D E
73. A B C D E
74. A B C D E
75. A B C D E
76. A B C D E
77. A B C D E
78. A B C D E
79. A B C D E
80. A B C D E
81. A B C D E
82. A B C D E
83. A B C D E
84. A B C D E
85. A B C D E
86. A B C D E
87. A B C D E
88. A B C D E
89. A B C D E
90. A B C D E
91. A B C D E
92. A B C D E
93. A B C D E
94. A B C D E
95. A B C D E
96. A B C D E
97. A B C D E
98. A B C D E
99. A B C D E
100. A B C D E

Please mail or fax this survey along with your final exam

HAZARD COMMUNICATION CEU 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?_____

What would you do to improve the course?

_____

_____

_____

Any other concerns or comments.

_____

_____

Hazard Communication CEU Training Assignment

You will have 90 days from the start of this assignment to complete your assignment. The assignment is multiple choice style questionnaire and you can utilize the answer key and submit it to TLC. We would prefer that you e mail your assignment, along with the registration form, to info@tlch2o.com or fax it to it to us.

One Answer per Question

1. **The Hazard Communication Standard affects**:
A. Some companies that use chemicals.
B. All companies that use chemicals.
C. Only those companies that volunteer to take advantage of the standard.

2. **Before starting any job involving a chemical, find out its hazards and protections by checking its:**
A. Container label or MSDS.
B. Storage location.
C. Odor or appearance.

3. **To determine if PPE is required for handling a specific chemical:**
A. Smell or taste the substance.
B. Read the MSDS.
C. Ask a colleague.

4. **A chemical label will NOT tell you:**
A. The characteristics of the chemical.
B. The name, address, and emergency phone number of the company that made or imported the chemical.
C. Components that are part of a trade secret.

5. **Your employer has an MSDS for:**
A. All materials used at your facility.
B. Every chemical you use in the workplace.
C. Chemicals that could catch fire easily.

6. **OSHA's Hazard Communication Standard gives you the right to know about chemical hazards and protections.**
A. True
B. False

7. **Every chemical requires the same protective measures.**
A. True
B. False

8. **The MSDS will tell you how to store and handle a chemical correctly.**
A. True
B. False

9. **OSHA requires employers to have a written hazard communication program.**
A. True
B. False

10. **It's safe to assume that a container with no label has the same contents as nearby containers.**
A. True
B. False

11. _____ 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.
A. SARA Title III
B. SENSITIZER
C. RCRA
D. Contaminated air
E. None of the Above

12. _____ means long-term or prolonged.
A. TERATOGEN
B. COMBUSTIBLE LIQUID
C. COD
D. COC
E. None of the Above

13. _____ stands for central nervous system.
A. TERATOGEN
B. COMBUSTIBLE LIQUID
C. COD
D. COC
E. None of the Above

14. _____ stands for Cleveland open cup, a standard method of determining flash points.
A. TERATOGEN
B. COMBUSTIBLE LIQUID
C. COD
D. COC
E. None of the Above

15. _____ stands for chemical oxygen demand.
A. TERATOGEN
B. COMBUSTIBLE LIQUID
C. COD
D. COC
E. None of the Above

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

16. _____ Any liquid having a flash point at or above 100 °F (37.8 °C), but below 200 °F (93.3 °C), except any mixture having components with flash points of 200 °F (93.3 °C) or higher, the total volume of which make up 99 per cent or more of the total volume of the mixture.
A. TERATOGEN
B. COMBUSTIBLE LIQUID
C. COD
D. COC
E. None of the Above

17. _____ Any substance that causes growth abnormalities in embryos, genetic modifications in cells, etc.
A. TERATOGEN
B. COMBUSTIBLE LIQUID
C. COD
D. COC
E. None of the Above

18. **THRESHOLD LIMIT VALUE (TLV)** : Airborne concentration of substances established by the American Conference of Governmental Industrial Hygienists, which represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without _____.
A. Release a gas
B. Chemical
C. Vapor pressure
D. Volatile
E. Adverse effect

19. _____ The pressure exerted at a given temperature of a vapor in equilibrium with its liquid or solid form. The higher the vapor pressure, the more easily a liquid will evaporate.
A. Release a gas
B. Chemical
C. Vapor pressure
D. Volatile
E. Adverse effect

20. **VOC**: _____ Organic Content.
A. Release a gas
B. Chemical
C. Vapor pressure
D. Volatile
E. Adverse effect

21. **WATER REACTIVE:** A chemical that reacts with water to _____ that is either flammable or presents a health hazard.
A. Release a gas
B. Chemical
C. Vapor pressure
D. Volatile
E. Adverse effect

22. **TOXIC**: Refers to a _____ falling within any of the following toxic categories.
A. Release a gas
B. Chemical
C. Vapor pressure
D. Volatile
E. Adverse effect

23. A chemical that has a _____ lethal dose (LD50) of more than 50 milligrams per kilogram, but not more than 500 milligrams per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 milligrams each.
A. Explosive limit
B. Adverse effects
C. Median
D. Person is exposed
E. Decomposition

24. A chemical that has a _____ lethal dose (LD50) of more than 200 milligrams per kilogram, but not more than 1000 milligrams per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between 2 and 3 kilograms each.
A. Explosive limit
B. Adverse effects
C. Median
D. Person is exposed
E. Decomposition

25. A chemical that has a _____ lethal concentration (LC50) in air of more than 200 parts per million, but not more than 2000 parts per million by volume of gas or vapor, or more than two milligrams per liter, but not more than 20 milligrams per liter of mist, fume or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.
A. Explosive limit
B. Adverse effects
C. Median
D. Person is exposed
E. Decomposition

26. **TOXICITY**: The sum of _____ resulting from exposure to a material, generally by the mouth, skin, or respiratory tract.
A. Explosive limit
B. Adverse effects
C. Median
D. Person is exposed
E. Decomposition

27. **TWA** (Time Weighted Average exposure) : The airborne concentration of a material to which a _____, averaged over the total exposure time, generally the total workday (8 to 12 hours).
A. Explosive limit
B. Adverse effects
C. Median
D. Person is exposed
E. Decomposition

28. **UEL or UFL**: Upper _____ or upper flammable limit of a vapor or gas; the highest concentration (highest percentage of the substance in air) that will produce a flash of fire when an ignition source (heat, arc, or flame) is present.
A. Explosive limit
B. Adverse effects
C. Median
D. Person is exposed
E. Decomposition

29. **UNSTABLE**: Tending toward _____ or another state, or as produced or transported, will vigorously polymerize, decompose, condense, or become self-reactive under condition of shocks, pressure, or temperature.
A. Explosive limit
B. Adverse effects
C. Median
D. Person is exposed
E. Decomposition

30. **BOD:** BOD stands for _____ oxygen demand.
A. Boiling point
B. Biological
C. Vapor state
D. Material changes
E. None of the Above

31. **BOILING POINT**: Temperature at which a liquid changes to a _____ at a given pressure (usually sea level pressure = 760 mmHg).
A. Boiling point
B. Biological
C. Vapor state
D. Material changes
E. None of the Above

32. The _____ is the temperature at which the material changes from a liquid to a gas.
A. Boiling point
B. Biological
C. Vapor state
D. Material changes
E. None of the Above

33. Below the _____, the liquid can evaporate to form a vapor. As the material approaches the boiling point, the change from liquid to vapor is rapid and vapor concentrations in the air can be extremely high.
A. Boiling point
B. Biological
C. Vapor state
D. Material changes
E. None of the Above

34. **EXPLOSIVE**: A chemical that causes a sudden, almost _____ of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.
A. Boiling point
B. Instantaneous release
C. Vapor state
D. Material changes
E. None of the Above

35. _____ A person's contact with a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.).
A. Flash point
B. Extinguish fires
C. Uncontrolled release
D. Vapor
E. Exposure

36. **EXTINGUISHING MEDIA**: Specifies the fire-fighting agents that should be used to _____.
A. Flash point
B. Extinguish fires
C. Uncontrolled release
D. Vapor
E. Explosive

37. Liquid, flammable--Any liquid having a _____below 100 °F (37.8 °C), except any mixture having components with flash points of 100 °F (37.8 °C) or higher, the total of which make up 99 percent or more of the total mixture volume.
A. Flash point
B. Extinguish fires
C. Uncontrolled release
D. Vapor
E. Explosive

38. _____ --A solid, other than an explosive, that can cause fire through friction, absorption of mixture, spontaneous chemical change, or retained heat from manufacturing or processing, or that can be readily ignited and, when ignited, will continue to burn or be consumed after removal from the source of ignition.
A. Solid, flammable
B. Extinguish fires
C. Uncontrolled release
D. Vapor
E. Explosive

39. _____ The temperature at which a liquid will give off enough flammable vapor to ignite.
A. Flash point
B. Extinguish fires
C. Uncontrolled release
D. Vapor
E. Explosive

40. _____ Any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment, which could result in an uncontrolled release of hazardous chemical into the testing environment.
A. FORESEEABLE EMERGENCY
B. HAZARD RATINGS
C. HAZARD WARNING
D. HAZARDOUS MATERIAL
E. None of the Above

41. _____ Material ratings of one to four which indicate the severity of hazard with respect to health, flammability, and reactivity.
A. FORESEEABLE EMERGENCY
B. HAZARD RATINGS
C. HAZARD WARNING
D. HAZARDOUS MATERIAL
E. None of the Above

42. _____ Any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which conveys the hazards of the chemical(s) in the container(s).
A. FORESEEABLE EMERGENCY
B. HAZARD RATINGS
C. HAZARD WARNING
D. HAZARDOUS MATERIAL
E. None of the Above

43. _____ In a broad sense, any substance or mixture of substances having properties capable of producing adverse effects on the health or safety of a human being.
A. FORESEEABLE EMERGENCY
B. HAZARD RATINGS
C. HAZARD WARNING
D. HAZARDOUS MATERIAL

44. The term "_____ " includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatoxins, nephrotoxins, neurotoxins, agents that can act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes.
A. IRRITANT
B. INGESTION
C. INCOMPATIBLE
D. Health hazard
E. INHALATION

45. _____ Materials that could cause dangerous reactions from direct contact with one another. These types of chemicals should never be stored together.
A. IRRITANT
B. INGESTION
C. INCOMPATIBLE
D. Health hazard
E. INHALATION

46. _____ The taking in of a substance through the mouth.
A. IRRITANT
B. INGESTION
C. INCOMPATIBLE
D. Health hazard
E. INHALATION

47. _____ The breathing in of a substance in the form of a gas, vapor, fume, mist, or dust.
A. IRRITANT
B. INGESTION
C. INCOMPATIBLE
D. Health hazard
E. INHALATION

48. _____ A substance which, by contact in sufficient concentration for a sufficient period of time, will cause an inflammatory response or reaction of the eye, skin, or respiratory system. The contact may be a single exposure or multiple exposure.
A. IRRITANT
B. INGESTION
C. INCOMPATIBLE
D. Health hazard
E. INHALATION

49. _____ of a vapor or gas; the lowest concentration (lowest percentage of the substance in air) that will produce a flash of fire when an ignition source (heat, arc, or flame) is present. At concentrations lower than the LEL, the mixture is too "**lean**" to burn. See UEL.
A. LETHAL CONCENTRATION 50
B. LETHAL DOSE 50 (LD50)
C. LEL or LFL
D. MAXIMUM ACCEPTABLE AMBIENT CONCENTRATION (MAAC)
E. MEDIAN LETHAL CONCENTRATION (LC50)

50. _____ The concentration of a material in air which, on the basis of laboratory tests, is expected to kill 50 percent of a group of test animals when administered as a single exposure (usually 1 to 4 hours).
A. LETHAL CONCENTRATION 50
B. LETHAL DOSE 50 (LD50)
C. LEL or LFL
D. MAXIMUM ACCEPTABLE AMBIENT CONCENTRATION (MAAC)
E. None of the Above

51. _____ is the ability of a material to undergo a chemical change. A chemical reaction may occur under conditions such as heating, burning, contact with other chemicals, or exposure to light.
A. CHEMICAL REACTIVITY
B. DENSITY
C. DECOMPOSITION PRODUCTS
D. DERMAL TOXICITY
E. DERMAL

52. _____ A single dose of a material expected to kill 50 percent of a group of test animals. The dose is expressed as the amount per unit of body weight, the most common expression being milligrams of material per kilogram of body weight (mg/kg of body weight). Usually refers to oral or skin exposure.
A. LETHAL CONCENTRATION 50
B. LETHAL DOSE 50 (LD50)
C. LEL or LFL
D. MAXIMUM ACCEPTABLE AMBIENT CONCENTRATION (MAAC)
E. None of the Above

53. **NFPA**: National Fire Protection Association is an international membership organization which promotes/ improves fire protection and prevention and establishes safeguards against loss of life and property by fire. Best known on the industrial scene for the _____ (16 volumes of codes, standards, recommended practices and manuals developed and periodically updated by NFPA technical committees).
A. LETHAL CONCENTRATION 50
B. LETHAL DOSE 50 (LD50)
C. LEL or LFL
D. MAXIMUM ACCEPTABLE AMBIENT CONCENTRATION (MAAC)
E. None of the Above

54. Among these is NFPA 704M, the code for showing hazards of materials as they might be encountered under fire or related emergency conditions, using the familiar _____ or placards with appropriate numbers and symbols.
A. LETHAL CONCENTRATION 50
B. LETHAL DOSE 50 (LD50)
C. LEL or LFL
D. MAXIMUM ACCEPTABLE AMBIENT CONCENTRATION (MAAC)
E. None of the Above

55. _____ The NTP publishes an Annual Report on Carcinogens which identifies substances that have been studied and found to be carcinogens in animal or human evaluations.
A. LETHAL CONCENTRATION 50
B. LETHAL DOSE 50 (LD50)
C. LEL or LFL
D. MAXIMUM ACCEPTABLE AMBIENT CONCENTRATION (MAAC)
E. None of the Above

56. _____The maximum allowable twenty-four hour average concentration, in ambient air, of a toxic air contaminant.
A. LETHAL CONCENTRATION 50
B. LETHAL DOSE 50 (LD50)
C. LEL or LFL
D. MAXIMUM ACCEPTABLE AMBIENT CONCENTRATION (MAAC)
E. MEDIAN LETHAL CONCENTRATION (LC50)

57. _____The atmospheric concentration found to be lethal to 50 percent of a group of test animals exposed for the specified time period.
A. LETHAL CONCENTRATION 50
B. LETHAL DOSE 50 (LD50)
C. LEL or LFL
D. MAXIMUM ACCEPTABLE AMBIENT CONCENTRATION (MAAC)
E. MEDIAN LETHAL CONCENTRATION (LC50)

58. _____The dose found to be lethal in 50 percent of a group of test animals when administered by the specified route, e.g., oral or dermal.
A. LETHAL CONCENTRATION 50
B. LETHAL DOSE 50 (LD50)
C. LEL or LFL
D. MAXIMUM ACCEPTABLE AMBIENT CONCENTRATION (MAAC)
E. MEDIAN LETHAL DOSE

59. _____The temperature at which a solid substance changes to a liquid state. For mixtures, the melting range may be given.
A. LETHAL CONCENTRATION 50
B. LETHAL DOSE 50 (LD50)
C. LEL or LFL
D. MAXIMUM ACCEPTABLE AMBIENT CONCENTRATION (MAAC)
E. None of the Above

60. **MIXTURE**: Any combination of two or more _____ if the combination is not, in whole or in part, the result of a chemical reaction.
A. PERMISSIBLE EXPOSURE LIMITS
B. MUTAGEN
C. ORAL TOXICITY
D. CHEMICALS
E. None of the Above

61. _____Those chemicals or physical effects that can alter genetic material in an organism and result in physical or functional changes in all subsequent generations.
A. PERMISSIBLE EXPOSURE LIMITS
B. MUTAGEN
C. ORAL TOXICITY
D. OXIDIZER
E. None of the Above

62. _____Adverse effects resulting from taking a substance into the body via the mouth. Ordinarily used to denote effects in experimental animals.
A. PERMISSIBLE EXPOSURE LIMITS
B. MUTAGEN
C. ORAL TOXICITY
D. OXIDIZER
E. None of the Above

63. **OSHA**: Occupational Safety and Health Administration, U.S. Department of Labor, the agency that regulates _____.
A. PERMISSIBLE EXPOSURE LIMITS
B. MUTAGEN
C. ORAL TOXICITY
D. OXIDIZER
E. None of the Above

64. _____ What is a chemical other than a blasting agent or explosive that initiates or in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.
A. PERMISSIBLE EXPOSURE LIMITS
B. MUTAGEN
C. ORAL TOXICITY
D. OXIDIZER
E. None of the Above

65. _____are OSHA's legal exposure limits.
A. PERMISSIBLE EXPOSURE LIMITS
B. MUTAGEN
C. ORAL TOXICITY
D. OXIDIZER
E. None of the Above

66. pH of 7 is neutral. Numbers from 7 to 14 indicate greater _____. Numbers from 7 to 0 indicate greater acidity.
A. Alkalinity
B. Product
C. Unique identifier
D. Chemical data bases
E. Institutions

67. **CAS REGISTRY NUMBER:** The CAS Registry Number is a number assigned to a material by the Chemical Abstracts Service (**CAS**) of the American Chemical Society (**ACS**). The CAS number provides a single _____.
A. Alkalinity
B. Product
C. Unique identifier
D. Chemical data bases
E. Institutions

68. A _____is necessary because the same material can have many different names. For example, the name given to a specific chemical may vary from one language or country to another.
A. Alkalinity
B. Product
C. Unique identifier
D. Chemical data bases
E. Institutions

69. The CAS Registry Number is similar to a telephone number and has no significance in terms of the chemical nature or hazards of the material. The CAS Registry Number can be used to locate additional information on the material, for example, when searching in books or _____.
A. Alkalinity
B. Product
C. Unique identifier
D. Chemical data bases
E. Institutions

70. ACGIH stands for American Conference of Governmental Industrial Hygienists. The ACGIH is an association of occupational health professionals employed by government and educational _____.
A. Alkalinity
B. Product
C. Unique identifier
D. Chemical data bases
E. Institutions

71. **ACTIVE INGREDIENT:** An active ingredient is the part of a _____ which actually does what the product is designed to do. It is not necessarily the largest or most hazardous part of the product.
A. Alkalinity
B. Product
C. Unique identifier
D. Chemical data bases
E. Institutions

72. _____means sudden or brief. Acute can be used to describe either an exposure or a health effect. An acute exposure is a short-term exposure. Short-term means lasting for minutes, hours or days.
A. Flash
B. VAPOR DENSITY
C. ACUTE
D. APPEARANCE
E. ASPHYXIANT

73. _____The density of a material's vapor compared to the density of the air. If a vapor density is greater than one, it is more dense than air and will drop to the floor or the lowest point available.
A. Flash
B. VAPOR DENSITY
C. ACUTE
D. APPEARANCE
E. ASPHYXIANT

74. _____ A description of a substance (including color, size, and consistency) at normal room temperature and normal atmospheric conditions.
A. Flash
B. VAPOR DENSITY
C. ACUTE
D. APPEARANCE
E. ASPHYXIANT

75. _____A gas or vapor which can take up space in the air and reduce the concentration of oxygen available for breathing. Examples include acetylene, methane, and carbon dioxide.
A. Flash
B. VAPOR DENSITY
C. ACUTE
D. APPEARANCE
E. ASPHYXIANT

76. _____The temperature at which a material will ignite spontaneously or burn.
A. AEROSOL
B. AUTO-IGNITION TEMPERATURE
C. CHEMICAL FAMILY
D. CHEMICAL FORMULA
E. None of the Above

77. _____is a collection of very small particles suspended in air. The particles can be liquid (mist) or solid (dust or fume).
A. AEROSOL
B. AUTO-IGNITION TEMPERATURE
C. CHEMICAL FAMILY
D. CHEMICAL FORMULA
E. None of the Above

78. _____**:** stands for Comprehensive Environmental Response, Compensation and Liability Act (U.S.).
A. CERCLA
B. AUTO-IGNITION TEMPERATURE
C. CHEMICAL FAMILY
D. CHEMICAL FORMULA
E. None of the Above

79. The _____describes the general nature of the chemical. Chemicals belonging to the same family often share certain physical and chemical properties and toxic effects. However, there may also be important differences.
A. AEROSOL
B. AUTO-IGNITION TEMPERATURE
C. CHEMICAL FAMILY
D. CHEMICAL FORMULA
E. None of the Above

80. _____ , sometimes called the molecular formula, tells which elements (carbon, hydrogen, oxygen, and so on) make up a chemical. It also gives the number of atoms of each element in one unit or molecule of the chemical.
A. AEROSOL
B. AUTO-IGNITION TEMPERATURE
C. CHEMICAL FAMILY
D. CHEMICAL FORMULA
E. None of the Above

81. _____means able to burn. Broadly speaking, a material is combustible if it can catch fire and burn.
A. CONFIRMED HUMAN CARCINOGEN
B. CONDITIONS TO AVOID
C. COMBUSTIBLE
D. PHYSICAL HAZARD
E. None of the Above

82. _____A symbol relating the hydrogen ion (H+) concentration of that of a given standard solution.
A. CONFIRMED HUMAN CARCINOGEN
B. CONDITIONS TO AVOID
C. pH
D. PHYSICAL HAZARD
E. None of the Above

83. _____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. CONFIRMED HUMAN CARCINOGEN
B. CONDITIONS TO AVOID
C. POLYMERIZATION
D. PHYSICAL HAZARD
E. None of the Above

84. _____ A chemical reaction in which one or more small molecules combine to form larger molecules at a rate that releases large amounts of energy.
A. CONFIRMED HUMAN CARCINOGEN
B. CONDITIONS TO AVOID
C. POLYMERIZATION
D. PHYSICAL HAZARD
E. None of the Above

85. _____Conditions encountered during handling or storage that could cause a substance to become unstable.
A. CONFIRMED HUMAN CARCINOGEN
B. CONDITIONS TO AVOID
C. SPECIFIC GRAVITY
D. CORROSIVE MATERIAL
E. None of the Above

86. _____ Substances recognized to have carcinogenic or cocarcinogenic potential in humans.
A. CONFIRMED HUMAN CARCINOGEN
B. CONDITIONS TO AVOID
C. CORROSIVE MATERIAL
D. SPECIFIC GRAVITY
E. None of the Above

87. A _____can attack (corrode) metals or human tissues such as the skin or eyes.
A. CONFIRMED HUMAN CARCINOGEN
B. CONDITIONS TO AVOID
C. SPECIFIC GRAVITY
D. CORROSIVE MATERIAL
E. None of the Above

88. _____ A liquid or solid that causes visible destruction or irreversible alteration in human skin tissue at the site of contact.
A. CONFIRMED HUMAN CARCINOGEN
B. CONDITIONS TO AVOID
C. CORROSIVE MATERIAL
D. SPECIFIC GRAVITY
E. None of the Above

89. _____ The weight of a material compared to the weight of an equal volume of water is an expression of the density (or heaviness) of a material. Insoluble materials with specific gravity of less than 1.0 will float in or on water. Insoluble materials with specific gravity greater than 1.0 will sink in water. Most (but not all) flammable liquids have specific gravity less than 1.0 and, if not soluble, will float on water an important consideration for fire suppression.
A. CHEMICAL REACTIVITY
B. SUBSTANCES OF HIGH TOXICITY
C. SUSPECT HUMAN CARCINOGEN
D. SPECIFIC GRAVITY
E. None of the Above

90. _____ Those chemicals having an acute toxicity of either (1) Median Lethal Dose, single oral dose, rate, less than or equal to 50 mg/kg, or (2) Median Lethal Concentration, four-hour inhalation exposure, rat, less than or equal to 100 ppm, or (3) Median Lethal Dose, dermal exposure, rabbits, less than or equal to 100 mg/kg.
A. CHEMICAL REACTIVITY
B. SUBSTANCES OF HIGH TOXICITY
C. SUSPECT HUMAN CARCINOGEN
D. SPECIFIC GRAVITY
E. None of the Above

91. A substance suspected of inducing cancer based on human evidence or demonstration by appropriate methods, or carcinogenesis in two or more animal species or strains.
A. CHEMICAL REACTIVITY
B. SUBSTANCES OF HIGH TOXICITY
C. SUSPECT HUMAN CARCINOGEN
D. SPECIFIC GRAVITY
E. None of the Above

92. Undesirable effects such as pressure buildup, temperature increase or formation of other hazardous chemicals may result. (See also Dangerously Reactive Material and Reactive Flammable Material.)
A. CHEMICAL REACTIVITY
B. DENSITY
C. DECOMPOSITION PRODUCTS
D. DERMAL TOXICITY
E. DERMAL

93. Describes hazardous materials produced during heated operations.
A. CHEMICAL REACTIVITY
B. DENSITY
C. DECOMPOSITION PRODUCTS
D. DERMAL TOXICITY
E. DERMAL

94. The mass of a substance per unit volume. The density of a substance is usually compared to water, which has a density of 1. Substances which float on water have densities less than 1; substances which sink have densities greater than 1.
A. CHEMICAL REACTIVITY
B. DENSITY
C. DECOMPOSITION PRODUCTS
D. DERMAL TOXICITY
E. DERMAL

95. Adverse effects resulting from skin exposure to a substance.
A. CHEMICAL REACTIVITY
B. DENSITY
C. DECOMPOSITION PRODUCTS
D. DERMAL TOXICITY
E. DERMAL

96. Used on or applied to the skin.
A. CHEMICAL REACTIVITY
B. DENSITY
C. DECOMPOSITION PRODUCTS
D. DERMAL TOXICITY
E. DERMAL

97. CHEMTREC stands for the _____ Emergency Centre. It is a U. S. national center established by the Chemical Manufacturers Association (**CMA**) to relay pertinent emergency information concerning specific chemicals on requests from individuals.
A. Repeated doses
B. Chemical Transportation
C. Transportation emergencies
D. Adverse health
E. None of the Above

98. CHEMTREC has a 24-hour toll-free telephone number to help respond to chemical _____for companies who have registered with them for this service.
A. Repeated doses
B. Chemical Transportation
C. Transportation emergencies
D. Adverse health
E. None of the Above

99. **CHRONIC HEALTH EFFECTS**: Either adverse health effects resulting from long-term exposure or persistent _____effects resulting from short-term exposure.
A. Repeated doses
B. Chemical Transportation
C. Transportation emergencies
D. Adverse health
E. None of the Above

100. **CHRONIC TOXICITY**: resulting from repeated doses of or exposures to a substance over a _____ of time. Ordinarily used to denote effects in experimental animals.
A. Repeated doses
B. Chemical Transportation
C. Transportation emergencies
D. Adverse health
E. None of the Above

Please fax the answer key to TLC Western Campus Fax (928) 272-0747.