

Action Training FF1 HazMat Recognition & Identification

Name: _____ Date: _____

Beneath each question or incomplete statement is a list of possible answers. Circle the letter corresponding to the best answer.

1. An "asphyxiation effect" causes which of the following?
 - A. nausea
 - B. colds
 - C. burns
 - D. suffocation
2. "Radiation" exposure includes which of the following?
 - A. nausea
 - B. vomiting
 - C. burns to the skin
 - D. all of the above
3. You need to be familiar with many types of placard, label and marking systems to be able to recognize the type of hazard involved.
 - A. True
 - B. False
4. Infectious substances include which of the following?
 - A. anthrax bacteria
 - B. bloodborne pathogens
 - C. viruses
 - D. all of the above
5. When a citizen phones in a report that there is a "strong smell" in the area, you should NOT report the possible presence of hazardous materials until you see the situation firsthand.
 - A. True
 - B. False
6. The hazardous effects of cryogenic materials are grouped with other poisons.
 - A. True
 - B. False

7. When corrosives and combustibles interact, it can result in a fire or explosion.
- A. True
 - B. False
8. Biological materials cause "etiologiical effects".
- A. True
 - B. False
9. When talking about exposure to poisons, which of the following is incorrect?
- A. it can damage organs and body systems
 - B. the central nervous system can shut down
 - C. burns can result
 - D. circulation and respiration can stop
10. You should assume that if certain containers are present that the HAZMAT is probably also on-scene.
- A. True
 - B. False
11. What is potentially the most dangerous unrecognized HAZMAT situation from the list below?
- A. a box with an "Irritant" placard sealed and unopened in a flooded basement
 - B. a 1 pound (.5 kilo) box of commercial pesticide in a garden shed exposure during a house fire
 - C. an unmarked 55 gallon (208 L) closed steel drum in a basement during a house fire
 - D. a placarded "Empty" DOT 412 (MC312) tank truck waiting at the scale at a highway weigh station
12. Which of the following typical tank trucks often carries chemicals?
- A. DOT 406 (MC 306)
 - B. DOT 407 (MC 307)
 - C. MC 331

13. "Mechanical effects" include which of the following?
- A. children being exposed to asbestos in their school
 - B. a person being stuck by a flying object
 - C. a house fire
 - D. a person getting sick from radiation
14. There are only TWO types of corrosives, acid and base.
- A. True
 - B. False
15. Which of the TWO situations below best describe an "asphyxiation" situation?
- A. an inert gas enters the ventilation shaft at a school
 - B. an explosion buries a person under debris
 - C. a container of hydrogen explodes
 - D. a person locked in a garage breathes in carbon dioxide
16. Which of the following is grouped under "Mechanical effects"?
- A. inflammation
 - B. exploding containers
 - C. burns and frostbite
 - D. suffocation
17. Exposure to nerve poisons usually results in shutting down the central nervous system in a human.
- A. True
 - B. False
18. Which of the following is the main purpose of pre-incident planning for hazardous materials response?
- A. see how the community likes the fire department and the chief
 - B. get into your community and know what's really there
 - C. get to know the neighbors and their pets
 - D. check the water pressure in the hydrants in your jurisdiction

19. Which of the following ARE included in the "Seven Threats" of hazardous materials?
- A. flammable, inflammable, benign
 - B. organic, inorganic, metals
 - C. thermal, poison, corrosive
 - D. biological, botanical, zoological
20. There are certain container shapes that are typically used to store or transport hazardous materials.
- A. True
 - B. False
21. When talking about the clues that your senses provide you, which of the following do you need to pay attention to?
- A. what you see
 - B. what you hear
 - C. what you smell
 - D. all of the above
22. Which of the substances below is considered the MOST volatile (unstable and explosive)?
- A. chlorine
 - B. paint
 - C. acetylene
 - D. hydrochloric acid
23. Which of the following is probably your BEST source of information about hazardous materials in your jurisdiction?
- A. a national on-line data base
 - B. employees of the facility involved
 - C. fire department pre-incident inspection survey
 - D. public works personnel
24. Using "context clues" where would you assume you might find a box of pesticides and poisons in a typical home?
- A. in a kitchen cabinet
 - B. in the bathroom
 - C. under a bed in a guest bedroom
 - D. in a garden shed

25. Which of the following hazardous materials would NOT be grouped with "thermal effects?"
- A. dynamite
 - B. liquid nitrogen
 - C. fire
 - D. cryogenic substances
26. Which of the following statements is TRUE?
- A. there is one international system used for placards, labels and markings
 - B. there are many international systems for placards, labels and markings
 - C. there are three international systems used for placards, labels and markings
27. Usually tall, thin cylinders are under high pressure and short, fat cylinders are low pressure.
- A. True
 - B. False
28. Which of the following statements is TRUE?
- A. there is one universally accepted marking system used for placards, labels and markings
 - B. there are many types of marking systems for placards, labels and markings
 - C. there are three marking systems used for placards, labels and markings
29. Which of the following is NOT considered an occupancy where hazardous materials may be stored or used?
- A. gas stations and hardware stores
 - B. main highway with truck traffic
 - C. rrain track with rail traffic
 - D. pet store with exotic birds

30. You should be extremely concerned about the effects of hazardous materials if you come across which of the following scenarios?
- A. an unoccupied storage shed on fire that contains fertilizer and fuel
 - B. a water truck that has run off a bridge and crashed into the river
 - C. a sushi bar on fire in the basement of a book store
 - D. all of the above
31. Accepting the fact that drums are usually marked to indicate the contents, which of the following statements is also TRUE?
- A. you can always trust what is marked on the side of the drum
 - B. drums are never used for other purposes because of their importance
 - C. there are times when drums contain hazardous waste that is not marked
 - D. an unmarked drum indicates that it is empty
32. Which of the following statements is FALSE?
- A. cylinder color indicates the contents, and colors are uniform across industries
 - B. the color of cylinders differs from company to company.
 - C. cylinders are many different colors, thus color is not a good indicator of contents.
 - D. some industries follow cylinder color recommendations, but not all do.
33. When can a helium cylinder become a "rocket"?
- A. when stored below ground
 - B. when involved in a fire
 - C. when plunged under icy water
 - D. it can't because it is filled with a non-volatile substance
34. Which of the following typical tank trucks often carries propane?
- A. DOT 406 (MC 306)
 - B. DOT 407 (MC 307)
 - C. MC 331

35. Which of the following is NOT a corrosive?
- A. hydrochloric acid
 - B. sulfuric acid
 - C. potassium hydroxide
 - D. folic acid
36. Which of the following is NOT one of the four basic clues to the possible presence of hazardous materials at a scene?
- A. location and occupancy
 - B. weather reports
 - C. placards, labels and markings
 - D. your senses
37. The tank truck DOT 412 (or MC 312) is most often used for what purpose?
- A. to carry corrosives such as acid
 - B. to carry biological materials such as anthrax
 - C. to carry poisons such as cleaning fluid
 - D. to carry milk products
38. Which of the typical tanker trucks used to carry hazardous materials has a rounded end on the tank?
- A. DOT 406 (MC 306)
 - B. DOT 407 (MC 307)
 - C. MC 331
 - D. DOT 412 (MC 312)
39. When talking about the effects of corrosives on humans, which of the statements below are CORRECT? Check all that apply.
- A. are caused by biological materials, such as viruses
 - B. can cause burning of the skin, eyes, nose and mouth
 - C. can cause vomiting
 - D. can cause breathing difficulties
40. Even safely contained hazardous materials can cause all kinds of illness or environmental destruction.
- A. True
 - B. False

41. Which of the following is probably NOT a concern for location and type of occupancy for hazardous materials?
- A. high-tech manufacturing facility
 - B. day-care center
 - C. marina
 - D. shipyard
42. A hazardous material classified as a "carcinogen" causes which of the following?
- A. coughing
 - B. inflammation
 - C. cancer
 - D. itchy rash
43. When talking about an overheated cylinder, which of the following statements is TRUE?
- A. a cylinder can unravel like a golf ball
 - B. a cylinder can travel long distances and pierce concrete walls
 - C. a cylinder can implode to one-fourth its normal size
 - D. all of the above
44. Which of the following locations probably DOES NOT contain harmful quantities of hazardous chemicals and gases?
- A. Fairway Village Dry Cleaners
 - B. Custom Pro Paint and Decor Store
 - C. Town of Farmingham Municipal Swimming Pool
 - D. Alki Middle School
45. Unconfined hazardous materials can cause both short and long-term harm for both people and the environment.
- A. True
 - B. False
46. Which of the following typical tank trucks often carries fuels?
- A. DOT 406 (MC 306)
 - B. DOT 407 (MC 307)
 - C. MC 331

47. Which of the following is typically NOT stored in cylinders?
- A. propane
 - B. oxygen
 - C. nitrogen
 - D. fertilizer
48. Hazardous materials can be found in all communities including rural, urban or even in sleepy suburbs.
- A. True
 - B. False
49. "Etiological effects" can cause which of the following?
- A. fatal diseases
 - B. deep tissue burns
 - C. suffocation
 - D. frostbite
50. The placard representing Radiation is which of the following colors?
- A. green and black
 - B. blue and orange
 - C. yellow and black
 - D. red and yellow
51. Which of the following is the color of DOT hazard class 1 (Explosives)?
- A. green
 - B. yellow
 - C. red
 - D. orange
52. On DOT placards each hazard class has its own unique color(s).
- A. True
 - B. False
53. The placards for toxic or poison gases are marked with the symbol of which of the following?
- A. gasping face
 - B. a hand grabbing at a throat
 - C. a skull and crossbones
 - D. a hand holding a nose

54. The BLUE-bordered section of the Emergency Response Guidebook shows you what information?
- A. local emergency shelters, in alphabetical order
 - B. the most dangerous chemicals
 - C. chemicals by name, in alphabetical order
 - D. phone numbers to local hospitals
55. The placards for non-flammable gases are yellow.
- A. True
 - B. False
56. Which TWO of the following are DOT Class 3 liquids?
- A. gasoline
 - B. mercury
 - C. iodine
 - D. fuel oils
57. Poison gases are included in Class 2 (Gases) in the DOT systems and not in Class 6 (Poisonous Materials).
- A. True
 - B. False
58. There are how many clues on each DOT placard?
- A. 2
 - B. 4
 - C. 6
 - D. 5
59. Which of the following statements is TRUE regarding "less hazardous" materials?
- A. a placard is required when transporting less hazardous materials regardless of the weight.
 - B. a placard is not required to transport less hazardous materials if the shipment weighs less than 1,001 pounds (454 kilograms)
 - C. a placard is not required to transport less than 5,000 pounds (2,200 kilograms) of less hazardous materials.

60. Class 3 (Flammable Liquids) placards can be marked with any of the following words EXCEPT?
- A. flammable
 - B. combustible
 - C. flammable liquid
 - D. explosive
61. Class 6 hazards are which of the following?
- A. explosives
 - B. poisonous materials
 - C. gases
 - D. corrosives
62. When discussing extremely dangerous materials, which of the following statements is TRUE?
- A. a placard is required to transport any extremely dangerous material regardless of the amount
 - B. A placard is required to transport only large amounts of extremely dangerous materials
 - C. A placard is required to transport extremely dangerous materials only if the shipment weighs 900 pounds (400 kilograms) or more
63. In the NFPA 704 marking system the white square indicates which of the following?
- A. radioactive hazard
 - B. special hazard
 - C. fire hazard
 - D. health hazard
64. Another symbol that can be used for a type of Class 6, (Poisonous Materials) placard is a stock of wheat with an X through it.
- A. True
 - B. False
65. Class 5 hazards are which of the following?
- A. gases
 - B. explosives
 - C. miscellaneous hazardous materials
 - D. oxidizers and organic peroxides

66. The blue square in the NFPA 704 marking systems indicates which of the following?
- A. health hazard
 - B. special hazard
 - C. fire hazard
 - D. radioactive hazard
67. Which of the following statements is TRUE?
- A. the "Dangerous" placard is used when transporting mixed loads of hazardous materials of LESS than 5,000 pounds (2,270 kilograms) of any one type
 - B. the "Dangerous" placard is used when transporting mixed loads of hazardous materials of MORE than 5,000 pounds (2,270 kilograms) of any one type
68. Which of the following is the definition of a Class 5 (Oxidizers) placard?
- A. green with a fire sign
 - B. blue with a W in the lower left corner
 - C. yellow with a burning circle symbol
 - D. white with skull and crossbones
69. The DOT system established how many hazard classes?
- A. six
 - B. seven
 - C. nine
 - D. three
70. Class 9 is the "catch-all" category for any hazardous substance that doesn't fit into the other 8 DOT classes.
- A. True
 - B. False
71. The DOT has created a system that identifies hazardous materials during their movement by which of the following? Choose ALL the correct answers.
- A. air and water
 - B. rail and roadways
 - C. cyberspace
 - D. pipelines

72. Which four colors are used to represent DOT hazard class 2, (Gases)?
- A. green, red, white, yellow
 - B. blue, green, yellow, orange
 - C. red, orange, blue, green
 - D. white, red, purple, yellow
73. The highlighted chemicals in the yellow and blue sections represent hazardous materials that are classified as ACIDS.
- A. True
 - B. False
74. The GREEN-bordered section of the Emergency Response Guidebook gives you what information?
- A. a guide for response to less dangerous materials
 - B. evacuation and isolation information for the most dangerous chemicals
 - C. how to dispose of less dangerous chemicals
 - D. what to do when animals are involved in a dangerous situation
75. An explosive can be anything from a stick of dynamite to detonation cord.
- A. True
 - B. False
76. The Emergency Response Guidebook is divided into 4 different-colored sections. Which of the following is NOT a section in the book?
- A. yellow-bordered pages
 - B. blue-bordered pages
 - C. red-bordered pages
 - D. orange-bordered pages
77. The class 8 (Corrosives) placard, is half-black, half-red with a symbol of a chemical beaker on it.
- A. True
 - B. False

78. The YELLOW-bordered section of the Emergency Response Guidebook shows you which of the following information?
- A. chemical names and manufacturer's addresses
 - B. chemicals by UN number, in numerical order
 - C. the steps to take in response to the situation
 - D. the dangers of the chemicals
79. Radioactive Materials are broken down into how many levels in the DOT system?
- A. 9
 - B. 5
 - C. 7
 - D. 3
80. Which of the following are included in the Nine Hazard Classes in the DOT system?
- A. viruses, poisons, inhalants
 - B. explosives, poisonous materials, corrosives
 - C. combustibles, irritants, flammables
81. The ORANGE-bordered section of the Emergency Response Guidebook gives you information on which of the following?
- A. what to do once you have identified the type of chemical involved
 - B. where to find the list of chemicals by name
 - C. how to call for an evacuation
 - D. where to locate the nearest fire department
82. Which TWO of the following are Class 4 hazards in the DOT system?
- A. explosives that are wetted with water or alcohol
 - B. magnesium ribbons
 - C. detonation cord
 - D. radioactive waste
83. Which of the following is NOT a Poisonous Material?
- A. arsenic
 - B. anthrax
 - C. anthrocite
 - D. botulism

84. DOT Class 3 hazards are which of the following?
- A. radioactive materials
 - B. flammable liquids
 - C. explosives
 - D. gases
85. It is estimated that 20% of trucks carrying hazardous materials do not have placards or are placarded incorrectly.
- A. True
 - B. False
86. DOT Class 1 hazards are which of the following?
- A. radioactive materials
 - B. miscellaneous hazardous materials
 - C. explosives
 - D. gases
87. The entries in the green section of the Emergency Response Guidebook represent chemicals that:
- A. have the ability to seep into the water system
 - B. have the ability to become airborne
 - C. have the ability to cause severe epidermal burns
 - D. can be safely and easily flushed with water
88. The orange section of the Emergency Response Guidebook lists the Potential Hazards and the correct emergency response procedures to take.
- A. True
 - B. False
89. DOT Class 2 hazards are which of the following?
- A. gases
 - B. corrosives
 - C. poisonous materials
 - D. flammable solids

90. Flammable solids are which class number in the DOT system?
- A. Class 1
 - B. Class 4
 - C. Class 2
 - D. all flammable materials are Class 3
91. The yellow square in the NFPA 704 marking system indicates which of the following?
- A. special hazard
 - B. fire hazard
 - C. reactivity hazard
 - D. health hazard
92. Gases include both flammable and non-flammable and poisonous gasses in the DOT hazard class system.
- A. True
 - B. False
93. Corrosives can do all of the following except which ONE?
- A. corrode aluminum
 - B. destroy skin
 - C. shatter glass
 - D. corrode steel
94. A storage placard marking system consisting of 4 small different-colored squares inside a larger diamond-shaped white square is called:
- A. the NFPA 911 marking system
 - B. the NAPS 204 marking system
 - C. the NAPA 709 marking system
 - D. the NFPA 704 marking system
95. In the NFPA 704 marking system which level of hazard is the most hazardous?
- A. 0
 - B. 1
 - C. 3
 - D. 4

96. Which of the following is NOT represented on a placard?
- A. color indicator
 - B. picture or symbol
 - C. manufacturer's ID number
 - D. hazard class number
97. Oxidizers and Organic peroxides produce carbon dioxide, which can feed a fire and make it burn more intensely.
- A. True
 - B. False
98. Class 9 hazards are which of the following?
- A. non-hazardous materials
 - B. gases
 - C. miscellaneous hazardous materials
 - D. flammable solids
99. Class 7 hazards are which of the following?
- A. corrosives
 - B. explosives
 - C. radioactive materials
 - D. gases
100. The book used by emergency responders as a tool to identify specific hazardous products is titled which of the following?
- A. DOT Emergency Response Workbook
 - B. U.S. Emergency Response Sourcebook
 - C. Emergency Response Guidebook
 - D. Transportation Response Guidebook

**Action Training FF1 HazMat Recognition & Identification
FITS Quiz Generator - Answer Sheet**

1. D NFPA 3-1.1
2. D NFPA 3-1.1
3. A NFPA 3-1.1
4. D NFPA 3-1.1
5. B NFPA 3-1.1
6. B NFPA 3-1.1
7. A NFPA 3-1.1
8. A NFPA 3-1.1
9. C NFPA 3-1.1
10. A NFPA 3-1.1
11. C NFPA 3-1.1
12. B NFPA 3-1.1
13. B NFPA 3-1.1
14. A NFPA 3-1.1
15. A,D NFPA 3-1.1
16. B NFPA 3-1.1
17. A NFPA 3-1.1
18. B NFPA 3-1.1
19. C NFPA 3-1.1
20. A NFPA 3-1.1
21. D NFPA 3-1.1
22. C NFPA 3-1.1
23. C NFPA 3-1.1
24. D NFPA 3-1.1
25. A NFPA 3-1.1
26. B NFPA 3-1.1
27. A NFPA 3-1.1
28. B NFPA 3-1.1
29. D NFPA 3-1.1
30. A NFPA 3-1.1
31. C NFPA 3-1.1
32. A NFPA 3-1.1
33. B NFPA 3-1.1
34. C NFPA 3-1.1
35. D NFPA 3-1.1
36. B NFPA 3-1.1
37. A NFPA 3-1.1
38. C NFPA 3-1.1
39. B,C,D NFPA 3-1.1
40. B NFPA 3-1.1
41. B NFPA 3-1.1
42. C NFPA 3-1.1
43. B NFPA 3-1.1
44. D NFPA 3-1.1
45. A NFPA 3-1.1
46. A NFPA 3-1.1
47. D NFPA 3-1.1
48. A NFPA 3-1.1

- 49. A NFPA 3-1.1
- 50. C NFPA 3-1.1
- 51. D NFPA 3-1.1
- 52. A NFPA 3-1.1
- 53. C NFPA 3-1.1
- 54. C NFPA 3-1.1
- 55. B NFPA 3-1.1
- 56. A,D NFPA 3-1.1
- 57. A NFPA 3-1.1
- 58. B NFPA 3-1.1
- 59. B NFPA 3-1.1
- 60. D NFPA 3-1.1
- 61. B NFPA 3-1.1
- 62. A NFPA 3-1.1
- 63. B NFPA 3-1.1
- 64. A NFPA 3-1.1
- 65. D NFPA 3-1.1
- 66. A NFPA 3-1.1
- 67. A NFPA 3-1.1
- 68. C NFPA 3-1.1
- 69. C NFPA 3-1.1
- 70. A NFPA 3-1.1
- 71. A,B,D NFPA 3-1.1
- 72. A NFPA 3-1.1
- 73. B NFPA 3-1.1
- 74. B NFPA 3-1.1
- 75. A NFPA 3-1.1
- 76. C NFPA 3-1.1
- 77. B NFPA 3-1.1
- 78. B NFPA 3-1.1
- 79. D NFPA 3-1.1
- 80. B NFPA 3-1.1
- 81. A NFPA 3-1.1
- 82. A,B NFPA 3-1.1
- 83. C NFPA 3-1.1
- 84. B NFPA 3-1.1
- 85. A NFPA 3-1.1
- 86. C NFPA 3-1.1
- 87. B NFPA 3-1.1
- 88. A NFPA 3-1.1
- 89. A NFPA 3-1.1
- 90. B NFPA 3-1.1
- 91. C NFPA 3-1.1
- 92. A NFPA 3-1.1
- 93. C NFPA 3-1.1
- 94. D NFPA 3-1.1
- 95. D NFPA 3-1.1
- 96. C NFPA 3-1.1
- 97. B NFPA 3-1.1
- 98. C NFPA 3-1.1
- 99. C NFPA 3-1.1
- 100. C NFPA 3-1.1