

Registration Form

# Hazard Communication CEU Course \$100.00

48 HOUR RUSH ORDER PROCESSING FEE ADDITIONAL \$50.00

*You will have 90 days from this date in order to complete this course*

List number of hours worked on assignment must match State Requirement. \_\_\_\_\_

Name \_\_\_\_\_ Signature \_\_\_\_\_

*I have read and understood the disclaimer notice on page 2. Digitally sign XXX*

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**Please circle/check which certification you are applying the course CEU's.**

Water Treatment\_\_\_\_ Distribution\_\_\_\_ Collection\_\_\_\_ Pretreatment\_\_\_\_

Wastewater Treatment\_\_\_\_ HAZWOPER\_\_\_\_ Other \_\_\_\_\_

Technical Learning College TLC PO Box 3060, Chino Valley, AZ 86323  
Toll Free (866) 557-1746 Fax (928) 272-0747 [info@tlch2o.com](mailto:info@tlch2o.com)

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*You can obtain a printed version of the course manual from TLC for an additional \$99.95 plus shipping charges.*

## **AFFIDAVIT OF EXAM COMPLETION**

I affirm that I personally completed the entire text of the course. I also affirm that I completed the exam without assistance from any outside source. I understand that it is my responsibility to file or maintain my certificate of completion as required by the state or by the designation organization.

## **Grading Information**

In order to maintain the integrity of our courses we do not distribute test scores, percentages or questions missed. Our exams are based upon pass/fail criteria with the benchmark for successful completion set at 70%. Once you pass the exam, your record will reflect a successful completion and a certificate will be issued to you.

## **Rush Grading Service**

If you need this assignment graded and the results mailed to you within a 48-hour period, prepare to pay an additional rush service handling fee of \$50.00. This fee may not cover postage costs. If you need this service, simply write RUSH on the top of your Registration Form. We will place you in the front of the grading and processing line.

**Texas Students Only**  
**Acknowledgement of Notice of Potential Ineligibility for License**  
*You are required to sign and return to TLC or your credit will not be reported.*

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Date of Birth: \_\_\_\_\_

Email Address: \_\_\_\_\_

By signing this form, I acknowledge that Technical Learning College notified me of the following:

- the potential ineligibility of an individual who has been convicted of an offense to be issued an occupational license by the Texas Commission on Environmental Quality (TCEQ) upon completion of the educational program;
- the current TCEQ Criminal Conviction Guidelines for Occupational Licensing, which describes the process by which the TCEQ's Executive Director determines whether a criminal conviction:
- renders a prospective applicant an unsuitable candidate for an occupational license;
- warrants the denial of a renewal application for an existing license; or
- warrants revocation or suspension of a license previously granted.
- the right to request a criminal history evaluation from the TCEQ under Texas Occupations Code Section 53.102; and
- that the TCEQ may consider an individual to have been convicted of an offense for the purpose of denying, suspending or revoking a license under circumstances described in Title 30 Texas Administrative Code Section 30.33.

Enrollee Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name of Training Provider/Organization: Technical Learning College

Contact Person: Melissa Durbin      Role/Title: Dean



# For Texas TCEQ Wastewater Licensed Operators

## Wastewater/Collections Rule Changes

### Rule Changes and Updates for Domestic Wastewater Systems

On Nov. 4, 2014, TCEQ commissioners adopted revisions to 30 Texas Administrative Code (TAC), Chapter 217, Design Criteria for Domestic Wastewater Systems, and “re-adopted” previously repealed rules in 30 TAC, Chapter 317, Design Criteria Prior to 2008.

#### ***Some of the changes to Chapter 217 include:***

- Adding new definitions and clarifying existing definitions;
- Adding design criteria and approval requirements for rehabilitation of existing infrastructure;
- Adding design criteria for new technologies, including cloth filters and air lift pumps;
- Making changes to reflect modern practices, standards and trends;
- Modifying rule language to improve readability and enforceability; and
- Modifying the design organic loadings and flows for a new wastewater treatment facility.

### **SUBCHAPTER A: ADMINISTRATIVE REQUIREMENTS §§217.1 - 217.18**

Effective December 4, 2015 §217.1. Applicability. (a) Applicability. (1) This chapter applies to the design, operation, and maintenance of: (A) domestic wastewater treatment facilities that are constructed with plans and specifications received and approved by the executive director after the effective date of the amendments to this chapter; (B) treatment units that are altered, constructed, or re-rated with plans and specifications received and approved by the executive director after the effective date of the amendments to this chapter; (C) collection systems that are constructed with plans and specifications received and approved by the executive director after the effective date of the amendments to this chapter; (D) collection system units that are altered, constructed, or re-rated with plans and specifications received and approved by the executive director after the effective date of the amendments to this chapter; (E) existing domestic wastewater treatment facilities that do not have a current Texas Pollutant Discharge Elimination System permit or a Texas Land Application Permit and are required to have an active wastewater permit; (F) existing wastewater treatment facilities and collection systems that never received approval for plans and specifications from the executive director; and (G) collection system rehabilitation projects covered in §217.56(c) and §217.69 of this title (relating to Trenchless Pipe Installation; and Maintenance, Inspection, and Rehabilitation of the Collection System). (2) Domestic wastewater treatment facilities, treatment units, collection systems, and collection system units with plans and specifications approved by the executive director that were received on or after August 28, 2008 and before the effective date of this chapter must comply with the rules in this chapter, as they existed immediately before the effective date of the amendments to this chapter.

The rules in Texas Commission on Environmental Quality Page 2 Chapter 217 - Design Criteria for Domestic Wastewater Systems effect immediately before the effective date of the amendments to this chapter are continued in effect for that purpose. (3) This chapter does not apply to: (A) the design, installation, operation, or maintenance of domestic wastewater treatment facilities, treatment units, collection systems, or collection system units with plans and specifications that were approved by the executive director on or

before August 27, 2008, which are governed by Chapter 317 of this title (relating to Design Criteria Prior to 2008) or design criteria that preceded Chapter 317 of this title; and (B) systems regulated by Chapter 285 of this title (relating to On-Site Sewage Facilities); or collection systems or wastewater treatment facilities that collect, transport, treat, or dispose of wastewater that does not have the characteristics of domestic wastewater, although the wastewater may contain domestic wastewater.

(b) The executive director may grant variances from new requirements added by the amendments of this chapter to a person who proposes to construct, alter, or re-rate a collection system or wastewater treatment facility if the plans and specifications for the project are submitted within 180 days after the date the amendments to this chapter are effective, provided the plans and specifications comply with the rules in effect immediately prior to the amendment. Adopted November 4, 2015 Effective December 4, 2015

**The link to the rules is available on the TCEQ website at <https://www.tceq.texas.gov/rules/indxpdf.html>**

***For Texas Students Only....***

Please sign and date this notice

Printed Name

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Signature

Date

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# Revised Hazard Communication Course Assignment

Name \_\_\_\_\_

Phone \_\_\_\_\_

Did you check with your State agency to ensure this course is accepted for credit?

*Method of Course acceptance confirmation. Please fill this section*

Website \_\_\_ Telephone Call \_\_\_ Email \_\_\_ Spoke to \_\_\_\_\_

Did you receive the approval number, if applicable? \_\_\_\_\_

What is the course approval number, if applicable? \_\_\_\_\_

*You are responsible to ensure that TLC receives the Assignment and Registration Key. Please call us to ensure that we received it.*

*Please write down any questions that cannot be found or has problems*

*Please circle, underline, bold or X only one correct answer  
A felt tipped pen works best.*

- |             |             |             |             |
|-------------|-------------|-------------|-------------|
| 1. A B C D  | 16. A B C D | 31. A B C D | 46. A B C D |
| 2. A B C D  | 17. A B C D | 32. A B C D | 47. A B C D |
| 3. A B C D  | 18. A B C D | 33. A B C D | 48. A B C D |
| 4. A B C D  | 19. A B C D | 34. A B C D | 49. A B     |
| 5. A B C D  | 20. A B C D | 35. A B C D | 50. A B C D |
| 6. A B C D  | 21. A B C D | 36. A B C D | 51. A B C D |
| 7. A B C D  | 22. A B C D | 37. A B C D | 52. A B C D |
| 8. A B C D  | 23. A B C D | 38. A B C D | 53. A B     |
| 9. A B C D  | 24. A B C D | 39. A B C D | 54. A B C D |
| 10. A B C D | 25. A B C D | 40. A B C D | 55. A B C D |
| 11. A B C D | 26. A B C D | 41. A B C D | 56. A B C D |
| 12. A B C D | 27. A B C D | 42. A B C D | 57. A B C D |
| 13. A B C D | 28. A B C D | 43. A B C D | 58. A B C D |
| 14. A B C D | 29. A B C D | 44. A B C D | 59. A B C D |
| 15. A B C D | 30. A B C D | 45. A B C D | 60. A B C D |

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|-------------|--------------|--------------|--------------|
| 61. A B C D | 93. A B C D  | 125. A B C D | 157. A B C D |
| 62. A B C D | 94. A B      | 126. A B C D | 158. A B C D |
| 63. A B C D | 95. A B C D  | 127. A B C D | 159. A B C D |
| 64. A B C D | 96. A B C D  | 128. A B C D | 160. A B C D |
| 65. A B C D | 97. A B C D  | 129. A B C D | 161. A B C D |
| 66. A B C D | 98. A B C D  | 130. A B C D | 162. A B C D |
| 67. A B C D | 99. A B C D  | 131. A B C D | 163. A B C D |
| 68. A B C D | 100. A B C D | 132. A B C D | 164. A B C D |
| 69. A B C D | 101. A B C D | 133. A B C D | 165. A B C D |
| 70. A B C D | 102. A B     | 134. A B C D | 166. A B C D |
| 71. A B C D | 103. A B C D | 135. A B C D | 167. A B C D |
| 72. A B C D | 104. A B C D | 136. A B C D | 168. A B C D |
| 73. A B C D | 105. A B C D | 137. A B C D | 169. A B C D |
| 74. A B C D | 106. A B C D | 138. A B C D | 170. A B C D |
| 75. A B C D | 107. A B C D | 139. A B C D | 171. A B C D |
| 76. A B     | 108. A B C D | 140. A B C D | 172. A B C D |
| 77. A B C D | 109. A B C D | 141. A B C D | 173. A B C D |
| 78. A B C D | 110. A B C D | 142. A B C D | 174. A B C D |
| 79. A B C D | 111. A B     | 143. A B C D | 175. A B C D |
| 80. A B C D | 112. A B C D | 144. A B C D | 176. A B C D |
| 81. A B C D | 113. A B C D | 145. A B C D | 177. A B     |
| 82. A B C D | 114. A B C D | 146. A B C D | 178. A B C D |
| 83. A B C D | 115. A B C D | 147. A B     | 179. A B C D |
| 84. A B C D | 116. A B C D | 148. A B C D | 180. A B C D |
| 85. A B C D | 117. A B C D | 149. A B     | 181. A B C D |
| 86. A B C D | 118. A B C D | 150. A B C D | 182. A B C D |
| 87. A B C D | 119. A B C D | 151. A B C D | 183. A B C D |
| 88. A B C D | 120. A B C D | 152. A B C D | 184. A B C D |
| 89. A B C D | 121. A B C D | 153. A B C D | 185. A B C D |
| 90. A B C D | 122. A B C D | 154. A B C D | 186. A B C D |
| 91. A B C D | 123. A B C D | 155. A B C D | 187. A B C D |
| 92. A B C D | 124. A B C D | 156. A B C D | 188. A B C D |

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| 189. A B C D | 217. A B C D | 245. A B C D | 273. A B C D |
| 190. A B C D | 218. A B C D | 246. A B C D | 274. A B C D |
| 191. A B C D | 219. A B C D | 247. A B C D | 275. A B C D |
| 192. A B C D | 220. A B C D | 248. A B C D | 276. A B C D |
| 193. A B C D | 221. A B C D | 249. A B C D | 277. A B     |
| 194. A B C D | 222. A B C D | 250. A B C D | 278. A B C D |
| 195. A B C D | 223. A B C D | 251. A B C D | 279. A B C D |
| 196. A B C D | 224. A B C D | 252. A B C D | 280. A B C D |
| 197. A B C D | 225. A B C D | 253. A B C D | 281. A B     |
| 198. A B C D | 226. A B C D | 254. A B C D | 282. A B C D |
| 199. A B C D | 227. A B C D | 255. A B C D | 283. A B C D |
| 200. A B C D | 228. A B     | 256. A B C D | 284. A B C D |
| 201. A B C D | 229. A B C D | 257. A B C D | 285. A B C D |
| 202. A B C D | 230. A B C D | 258. A B C D | 286. A B C D |
| 203. A B C D | 231. A B C D | 259. A B C D | 287. A B C D |
| 204. A B C D | 232. A B C D | 260. A B C D | 288. A B C D |
| 205. A B C D | 233. A B C D | 261. A B C D | 289. A B C D |
| 206. A B C D | 234. A B C D | 262. A B C D | 290. A B C D |
| 207. A B C D | 235. A B C D | 263. A B C D | 291. A B C D |
| 208. A B C D | 236. A B C D | 264. A B C D | 292. A B C D |
| 209. A B C D | 237. A B C D | 265. A B C D | 293. A B C D |
| 210. A B C D | 238. A B C D | 266. A B C D | 294. A B C D |
| 211. A B C D | 239. A B C D | 267. A B C D | 295. A B C D |
| 212. A B C D | 240. A B C D | 268. A B C D | 296. A B C D |
| 213. A B C D | 241. A B C D | 269. A B C D | 297. A B C D |
| 214. A B C D | 242. A B C D | 270. A B C D | 298. A B C D |
| 215. A B C D | 243. A B C D | 271. A B C D | 299. A B C D |
| 216. A B C D | 244. A B C D | 272. A B C D | 300. A B C D |

***Please write down any questions that cannot be found or has problems***

Please e-mail or fax this survey along with your final exam

**HAZARD COMMUNICATION CEU COURSE  
CUSTOMER SERVICE RESPONSE CARD**

NAME: \_\_\_\_\_

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.  
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3. Please rate the subject matter on the exam to your actual field or work.  
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Any other concerns or comments.

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## 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.

#### Revised Hazard Communication Program

1. New 2012 changes to OSHA's \_\_\_\_\_ are bringing the U.S. into alignment with the Globally Harmonized System of Classification and Labelling of Chemicals, improving safety and health protections for America's workers.

- A. SDS/MSDS
- B. Safety data sheets and labels
- C. Hazard Communication Standard
- D. None of the above

2. The Hazard Communication Standard in 1983 gave the workers the \_\_\_\_\_ but the new Globally Harmonized System gives workers the 'right to understand.'

- A. OSHA's HazCom rule
- B. Hazard information
- C. Right to know
- D. None of the above

3. The new Hazard Communication Standard still requires chemical manufacturers and importers to evaluate the chemicals they produce or import and provide \_\_\_\_\_ to employers and workers by putting labels on containers and preparing safety data sheets.

- A. SDS/MSDS
- B. Hazard information
- C. Hazard communication elements
- D. None of the above

4. Which of the following allowed chemical manufacturers and importers to convey hazard information on labels and material safety data sheets in whatever format they chose?

- A. OSHA's HazCom rule
- B. Old standard
- C. Hazardous chemicals
- D. None of the above

5. Which of the following provides a single set of harmonized criteria for classifying chemicals according to their health and physical hazards and specifies hazard communication elements for labelling and safety data sheets?

- A. Safety data sheets and labels
- B. Specific criteria
- C. Modified standard
- D. None of the above

6. The Safety Data Sheet is at the heart of federal OSHA's?

- A. Hazard communication standard (HazCom)
- B. Identities and hazards
- C. Hazardous chemicals
- D. None of the above

7. Which of the following is a detailed, written description of a hazardous chemical that must be kept in the workplace where such chemicals are used?

- A. SDS/MSDS
- B. Specific criteria
- C. Hazard communication elements
- D. None of the above

8. OSHA's HazCom rule has significant new requirements that will require employers to train their employees how to read and interpret the?
- A. New SDS
  - B. Hazard information
  - C. Hazardous chemicals
  - D. None of the above

**More on the Revised Hazard Communication Standard**

9. Which of the following will provide a common and coherent approach to classifying chemicals and communicating hazard information on labels and safety data sheets?
- A. Safety data sheets and labels
  - B. Specific criteria
  - C. Hazard Communication Standard (HCS)
  - D. None of the above

10. Once implemented, the revised standard will improve the quality and consistency of hazard information in the workplace, making it safer for workers by providing easily understandable information on appropriate handling and safe use of?
- A. OSHA's HazCom rule
  - B. Identities and hazards
  - C. Hazardous chemicals
  - D. None of the above

11. This update will also help reduce trade barriers and result in productivity improvements for American businesses that regularly handle, store, and use hazardous chemicals while providing cost savings for American businesses that periodically update \_\_\_\_\_ covered under the hazard communication standard.
- A. OSHA's HazCom rule
  - B. Specific criteria
  - C. Safety data sheets and labels for chemicals
  - D. None of the above

**Rationale**

12. In order to ensure \_\_\_\_\_ in the workplace, information about the identities and hazards of the chemicals must be available and understandable to workers.
- A. Hazard information
  - B. Identities and hazards
  - C. Chemical safety
  - D. None of the above

13. Chemical manufacturers and importers are required to evaluate the \_\_\_\_\_ they produce or import, and prepare labels and safety data sheets to convey the hazard information to their downstream customers;
- A. Safety data sheets and labels
  - B. Specific criteria
  - C. Hazards of the chemicals
  - D. None of the above

14. All employers with \_\_\_\_\_ in their workplaces must have labels and safety data sheets for their exposed workers, and train them to handle the chemicals appropriately.
- A. OSHA's HazCom rule
  - B. Identities and hazards
  - C. Hazardous chemicals
  - D. None of the above

**Major changes to the Hazard Communication Standard**

15. Which of the following provides specific criteria for classification of health and physical hazards, as well as classification of mixtures?
- A. SDS/MSDS
  - B. Hazard classification
  - C. Hazard communication elements
  - D. None of the above

16. Labels: Chemical manufacturers and importers will be required to provide a label that includes a harmonized signal word, pictogram, and hazard statement for each?

- A. Specific, detailed criteria
- B. Standardized label elements
- C. Hazard class and category
- D. None of the above

17. Safety Data Sheets: Will now have a specified 16-section format.

Information and training: Employers are required to train workers by December 1, 2013 on the new labels elements and safety data sheets format to facilitate?

- A. Recognition and understanding
- B. Hazard Communication Standard (HCS)
- C. The Purple Book
- D. None of the above

### **What is the Globally Harmonized System?**

18. The Globally Harmonized System is \_\_\_\_\_ to hazard communication, providing agreed criteria for classification of chemical hazards, and a standardized approach to label elements and safety data sheets.

- A. Hazard classification
- B. An international approach
- C. Existing hazard communication regulatory schemes
- D. None of the above

19. Which of the following was negotiated in a multi-year process by hazard communication experts from many different countries, international organizations, and stakeholder groups?

- A. Model regulation
- B. GHS
- C. Hazard Communication Standard (HCS)
- D. None of the above

20. It is based on major existing systems around the world, including \_\_\_\_\_ and the chemical classification and labeling systems of other US agencies.

- A. Specific, detailed criteria
- B. SDS
- C. OSHA's Hazard Communication Standard
- D. None of the above

21. The result of this negotiation process is the United Nations' document entitled "Globally Harmonized System of Classification and Labeling of Chemicals," commonly referred to as?

- A. Revised HCS
- B. GHS
- C. The Purple Book
- D. None of the above

22. This document provides harmonized classification criteria for health, physical, and environmental hazards of chemicals. It also includes standardized label elements that are assigned to these hazard classes and categories, and provide the appropriate signal words, pictograms, and hazard and precautionary statements to convey the?

- A. Specific, detailed criteria
- B. Hazards to users
- C. Hazard classes and hazard categories
- D. None of the above

23. A standardized order of information for safety data sheets is also provided. These recommendations can be used by regulatory authorities such as OSHA to establish \_\_\_\_\_ for hazard communication, but do not constitute a model regulation.

- A. Revised HCS
- B. Hazard Communication Standard (HCS)
- C. Mandatory requirements
- D. None of the above

**No intentional trick questions.**

**What Hazard Communication Standard provisions are unchanged in the revised HCS?**

24. The revised Hazard Communication Standard is a modification to the existing standard. The parts of the standard that did not relate to the \_\_\_\_\_ remained largely unchanged.

- A. Specific, detailed criteria
- B. GHS
- C. Hazard classes and hazard categories
- D. None of the above

25. There have been some modifications to terminology in order to align the \_\_\_\_\_ with language used in the GHS.

- A. Safety Data Sheets
- B. Revised HCS
- C. Hazards associated
- D. None of the above

26. Which of the following has been changed to "hazard classification" and "material safety data sheet" was changed to "safety data sheet?"

- A. Revised HCS
- B. Model regulation
- C. Hazard determination
- D. None of the above

**How will chemical hazard evaluation change under the revised Hazard Communication Standard?**

27. Under both the current Hazard Communication Standard and the \_\_\_\_\_ an evaluation of chemical hazards must be performed considering the available scientific evidence concerning such hazards.

- A. Revised HCS
- B. Standardized label elements
- C. Revised OSHA
- D. None of the above

28. Under the current \_\_\_\_\_, the hazard determination provisions have definitions of hazard and the evaluator determines whether or not the data on a chemical meet those definitions.

- A. Standardized label elements
- B. HCS
- C. GHS
- D. None of the above

29. The hazard classification approach in the \_\_\_\_\_ is quite different.

- A. Revised HCS
- B. GHS
- C. The Purple Book
- D. None of the above

30. It also establishes both hazard classes and hazard categories—for most of the effects; the classes are divided into categories that reflect the?

- A. Specific, detailed criteria
- B. Relative severity of the effect
- C. Hazard classes and hazard categories
- D. None of the above

31. Which of the following does not include categories for most of the health hazards covered, so this new approach provides additional information that can be related to the appropriate response to address the hazard?

- A. Revised HCS
- B. Specific, detailed criteria
- C. Current HCS
- D. None of the above

## United Nations Globally Harmonized System of Classification and Labeling of Chemicals

### 1.0 Background

32. The purpose of this document is to describe the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS), why it was developed, and how it relates to the?

- A. Earth Summit
- B. Sound management of chemicals
- C. National, regional and international levels
- D. None of the above

### 1.1 What is the GHS?

33. The GHS is a system for \_\_\_\_\_ the classification and labeling of chemicals. It is a logical and comprehensive approach to: Defining health, physical and environmental hazards of chemicals;

- A. Cradle to grave
- B. Hazardous properties of chemicals
- C. Standardizing and harmonizing
- D. None of the above

34. Creating classification processes that use available data on chemicals for comparison with the defined?

- A. Hazard classification
- B. Degree of hazard
- C. Hazard criteria
- D. None of the above

35. Communicating hazard information, as well as \_\_\_\_\_ on labels and Safety Data Sheets (SDS).

- A. Protective measures
- B. Multiple safety data sheets
- C. Hazardous properties of chemicals
- D. None of the above

36. The GHS itself is not a?

- A. Regulation or a standard
- B. Regulatory authorities in countries
- C. National, regional and international agencies
- D. None of the above

37. The elements in the \_\_\_\_\_ a mechanism to meet the basic requirement of any hazard communication system, which is to decide if the chemical product produced and/or supplied is hazardous and to prepare a label and/or Safety Data Sheet as appropriate.

- A. Cradle to grave
- B. Multiple safety data sheets
- C. GHS supply
- D. None of the above

38. Regulatory authorities in countries adopting the GHS will thus take the agreed criteria and provisions, and implement them through their own regulatory process and procedures rather than simply incorporating the text of the?

- A. Several U.S. regulatory agencies
- B. Regulatory authorities in countries
- C. GHS into their national requirements
- D. None of the above

39. The GHS Document thus provides countries with the regulatory building blocks to develop or modify existing national programs that address classification of hazards and transmittal of information about those hazards and associated protective measures. This helps to ensure the safe use of chemicals as they move through the \_\_\_\_\_ from "cradle to grave."

- A. Product life cycle
- B. Hazards to human health
- C. GHS
- D. None of the above

## 1.2 Why was the GHS developed?

40. Chemicals directly or indirectly affect our lives and are essential to our food, our health, and our lifestyle. The widespread use of chemicals has resulted in the development of ?

- A. Sector-specific regulations
- B. Regulatory authorities in countries
- C. National, regional and international levels
- D. None of the above

41. Having readily available information on the \_\_\_\_\_ and recommended control measures, allows the production, transport, use and disposal of chemicals to be managed safely. Thus, human health and the environment are protected.

- A. Hazards to human health
- B. Multiple safety data sheets
- C. Hazardous properties of chemicals
- D. None of the above

42. Which of the following should include systems through which chemical hazards are identified and communicated to all who are potentially exposed?

- A. The widespread use of chemicals
- B. Regulatory authorities in countries
- C. The sound management of chemicals
- D. None of the above

43. It is important to know what chemicals are present and/or used, their hazards to human health and the environment, and the?

- A. Means to control them
- B. Multiple safety data sheets
- C. Hazardous properties of chemicals
- D. None of the above

44. Which of the following each addressing specific use patterns and groups of chemicals, exist at the national, regional and international levels?

- A. Hazard classification
- B. Degree of hazard
- C. Number of classification and labeling systems
- D. None of the above

45. While the existing laws and regulations are similar, they are different enough to require multiple labels for the same product both within the U.S. and in international trade and to require \_\_\_\_\_ for the same product in international trade.

- A. Hazards to human health
- B. Multiple safety data sheets
- C. Hazardous properties of chemicals
- D. None of the above

46. Several U.S. regulatory agencies and various countries have different requirements for hazard definitions as well as for information to be included on?

- A. Labels or material safety data sheets
- B. The widespread use of chemicals
- C. National, regional and international levels
- D. None of the above

47. Flammable liquid is another hazard that is covered by most existing systems. The coverage varies between existing systems within the U.S. and globally. This means that the same product can be non-hazardous or hazardous with?

- A. Different labels/SDSs
- B. Multiple safety data sheets
- C. Hazardous properties of chemicals
- D. None of the above

48. In the area of trade, the need to comply with multiple regulations regarding \_\_\_\_\_ and labeling is costly and time-consuming.

- A. Hazard classification
- B. Degree of hazard
- C. Existing hazard communication regulatory schemes
- D. None of the above

49. Some multinational companies have estimated that there are over 100 diverse hazard communication regulations for their products globally.  
A. True      B. False

### 1.3 What was the International Mandate?

50. The single most important force that drove the creation of the \_\_\_\_\_ was the international mandate adopted in the 1992 United Nations Conference on Environment and Development, often called the "Earth Summit".  
A. GHS      C. Widespread use of chemicals  
B. Regulatory authorities in countries      D. None of the above

51. Which of the following was one of six program areas that were endorsed by the United Nations General Assembly?  
A. Regulatory changes      C. Harmonization of classification and labeling of chemicals  
B. GHS      D. None of the above

52. It was recognized that an internationally \_\_\_\_\_ to classification and labeling would provide the foundation for all countries to develop comprehensive national programs to ensure the safe use of chemicals.  
A. Hazards of a substance or mixture      C. Existing hazard communication systems  
B. Harmonized approach      D. None of the above

### 1.4 How was the GHS developed?

53. The ILO concluded that there were four major existing systems that needed to be harmonized to achieve a global approach.  
A. True      B. False

54. No international organization covers all aspects of?  
A. Self-classification      C. Chemical classification and labeling  
B. The data used for classification      D. None of the above

### 1.7 What are the benefits?

55. The basic goal of \_\_\_\_\_ is to ensure that employers, employees and the public are provided with adequate, practical, reliable and comprehensible information.  
A. The regulatory changes      C. Hazard communication  
B. GHS      D. None of the above

### 2.2 Will all hazardous chemicals require a GHS label and Safety Data Sheet?

56. The need for GHS labels and/or \_\_\_\_\_ is expected to vary by product category or stage in the chemical's lifecycle from research/production to end use.  
A. Self-classification      C. Safety Data Sheets  
B. The data used for classification      D. None of the above

57. For example, pharmaceuticals, food additives, cosmetics and pesticide residues in food will not be covered by the \_\_\_\_\_ at the point of consumption, but will be covered where workers may be exposed, and in transport.  
A. Regulatory changes      C. Transport  
B. GHS      D. None of the above

58. The exact requirements for labels and \_\_\_\_\_ will continue to be defined in national regulations.

- A. Safety Data Sheets
- B. Degree of hazard
- C. Hazards associated
- D. None of the above

### 2.3 How will the GHS impact existing regulations?

59. To the extent that countries adopt the GHS into their systems, \_\_\_\_\_ would be binding for covered industries.

- A. Achieve a global approach
- B. Regulatory changes
- C. Protective measure for their health and safety
- D. None of the above

60. For countries with existing systems, it is expected that \_\_\_\_\_ will be applied within the framework/infrastructure of existing hazard communication regulatory schemes.

- A. Hazard classification
- B. Safety Data Sheets
- C. GHS components
- D. None of the above

### 3.0 What is Classification?

61. Classification is \_\_\_\_\_ for hazard communication. It involves the identification of the hazard(s) of a chemical or mixture by assigning a category of hazard/danger using defined criteria.

- A. The regulatory changes
- B. The starting point
- C. Be exposed (workplaces), and in transport
- D. None of the above

62. The GHS is designed to be consistent and transparent. It draws a clear distinction between classes and categories in order to allow for "self-classification". For many hazards a decision tree approach is provided in?

- A. Self-classification
- B. Hazards of a substance or mixture
- C. The GHS Document
- D. None of the above

63. For several hazards \_\_\_\_\_ are semi-quantitative or qualitative. Expert judgment may be required to interpret these data.

- A. The global approaches
- B. The GHS criteria
- C. Preventive and protective measure for their health and safety
- D. None of the above

### Hazard Classification

64. Which of the following is used to indicate that only the intrinsic hazardous properties of substances and mixtures are considered?

- A. Hazards of a substance or mixture
- B. The data used for classification
- C. Hazard classification
- D. None of the above

65. Subsequent review of those data to ascertain the hazards associated with the?

- A. Safety Data Sheets
- B. Degree of hazard
- C. Substance or mixture
- D. None of the above

66. A decision on whether the substance or mixture will be classified as a hazardous substance or mixture and the \_\_\_\_\_, where appropriate, by comparison of the data with agreed hazard classification criteria.

- A. Hazard classification
- B. Degree of hazard
- C. Existing hazard communication regulatory schemes
- D. None of the above

67. Which of the following may be obtained from tests, literature, and practical experience?
- A. Hazard classification
  - B. Degree of hazard
  - C. Data used for classification
  - D. None of the above

68. Tests that determine hazardous properties conducted according to internationally recognized scientific principles can be used for purposes of?
- A. Hazard classification
  - B. Hazards associated
  - C. Existing hazard communication regulatory schemes
  - D. None of the above

### 3.1 What are the GHS Physical Hazards?

69. Which of the following developed by the ILO and UNCETDG, were largely based on the existing criteria used by the UN Model Regulation on the Transport of Dangerous Goods?

- A. Physical hazards classification
- B. Liquid or a gas
- C. GHS physical hazard criteria
- D. None of the above

70. Which of the following provides specific references to approved test methods and criteria for classification?

- A. Physical hazards classification process
- B. Scope of the GHS includes all target audiences
- C. GHS physical hazard criteria
- D. None of the above

71. Which of the following for physical hazards are quantitative or semi-quantitative with multiple hazard levels within an endpoint. This is different from several of the existing systems that currently have qualitative criteria for various physical hazards.

- A. GHS criteria
- B. Physical hazards
- C. Scope of the GHS includes all target audiences
- D. None of the above

72. In developing GHS criteria for \_\_\_\_\_ it was necessary to define physical states.

- A. GHS criteria
- B. Physical hazards
- C. Scope of the GHS includes all target audiences
- D. None of the above

73. Which of the following that is not a gas and which has a melting point or initial melting point of 20°C or less at standard pressure of 101.3 kPa?

- A. Physical hazards classification
- B. A solid is a substance or mixture
- C. A liquid is a substance or mixture
- D. None of the above

74. Which of the following that does not meet the definitions of a liquid or a gas?

- A. A liquid is a substance or mixture
- B. Liquid or a gas
- C. A solid is a substance or mixture
- D. None of the above

#### 3.1.1 Explosives

75. An explosive substance (or mixture) is a solid or liquid that is in itself capable by \_\_\_\_\_ of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings.

- A. Chemical reaction
- B. Flammable gas means a gas
- C. Ignition distance test
- D. None of the above

76. Pyrotechnic substances are included even when they do not evolve gases.

- A. True
- B. False

### 3.1.2 Flammable Gases

77. Which of the following means a gas having a flammable range in air at 20°C and a standard pressure of 101.3 kPa?

- A. Flammable gas
- B. Flammable gas means a gas
- C. Ignition distance test
- D. None of the above

78. Which of the following of this hazard class are assigned to one of two hazard categories on the basis of the outcome of the test or calculation method?

- A. Flammable components
- B. Substances and mixtures
- C. Solid or liquid particles
- D. None of the above

### 3.1.3 Flammable Aerosols

79. Aerosols are any gas compressed, liquefied or dissolved under pressure within a non-refillable container made of metal, glass or plastic, with or without?

- A. Single hazard category
- B. A liquid, paste or powder
- C. Chemical heat of combustion
- D. None of the above

80. The container is fitted with a release device allowing the contents to be ejected as solid or liquid particles in suspension in a gas, as a foam, paste or powder or?

- A. Flammable components
- B. In a liquid or gaseous state
- C. Solid or liquid particles
- D. None of the above

81. Flammable Aerosol if they contain any component classified as flammable according to the \_\_\_\_\_ for flammable liquids, flammable gases, or flammable solids.

- A. GHS criteria
- B. Flammable gas means a gas
- C. Ignition distance test
- D. None of the above

82. Classification is based on: \_\_\_\_\_ of flammable components;

- A. Flammable components
- B. Concentration
- C. Solid or liquid particles
- D. None of the above

83. Which of the following if combustion (mainly for transport/storage)?

- A. Single hazard category
- B. Flammable gas means a gas
- C. Chemical heat
- D. None of the above

84. Results from the \_\_\_\_\_ (mainly for worker/consumer);

- A. Flammable components
- B. Foam test
- C. Solid or liquid particles
- D. None of the above

85. Which of the following distance test (spray aerosols) (mainly for worker/consumer);

- A. Aerosol ignition
- B. Flammable gas means a gas
- C. Ignition
- D. None of the above

86. Which of the following spray aerosols) (mainly for worker/consumer)?

- A. Flammable components
- B. Foam aerosols
- C. Enclosed space test
- D. None of the above

**Aerosols are considered:**

87. Which of the following terms, if the concentration of the flammable components  $\leq 1\%$  and the heat of combustion is  $< 20$  kJ/g.

- A. Aerosols
- B. Nonflammable
- C. Extremely flammable
- D. None of the above

88. Which of the following terms, if the concentration of the flammable components  $>85\%$  and the heat of combustion is  $\geq 30$  kJ/g to avoid excessive testing.

- A. Aerosols
- B. Flammable gas
- C. Extremely flammable
- D. None of the above

**3.1.4 Oxidizing Gases**

89. Which of the following means any gas which may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does?

- A. Single hazard category
- B. Flammable gas
- C. Oxidizing gas
- D. None of the above

90. Which of the following of this hazard class are assigned to a single hazard category on the basis that, generally by providing oxygen, they cause or contribute to the combustion of other material more than air does?

- A. Aerosols
- B. Oxidizers
- C. Substances and mixtures
- D. None of the above

91. Currently, several workplace hazard communication systems cover oxidizers as?

- A. Aerosols
- B. Single hazard category
- C. A class of chemicals
- D. None of the above

**3.1.5 Gases under Pressure**

92. Which of the following under pressure are gases that are contained in a receptacle at a pressure not less than 280 Pa at 20°C or as a refrigerated liquid?

- A. Substances and mixtures
- B. Gases
- C. Substances and mixtures of this hazard class
- D. None of the above

93. For this group of gases, the following information is required: vapor pressure at 50°C; physical state at 20°C at standard ambient pressure?

- A. Readily combustible solids
- B. Basis of the flash point
- C. Critical temperature
- D. None of the above

94. Criteria that use the substances and mixtures of this hazard class will be a different classification basis for many workplace systems.

- A. True
- B. False

**3.1.6 Flammable Liquids**

95. Which of the following means a liquid having a flash point of not more than 93°C?

- A. Flammable liquid
- B. Flammable solids
- C. Explosive, organic peroxides or as oxidizing
- D. None of the above

### 3.1.7 Flammable Solids

96. Which of the following are solids that are readily combustible, or may cause or contribute to fire through friction?

- A. Readily combustible solids
- B. Flammable solids
- C. Critical temperature
- D. None of the above

97. Which of the following are powdered, granular, or pasty substances that are dangerous if they can be easily ignited by brief contact with an ignition source?

- A. Flammable liquid
- B. Readily combustible solids
- C. Explosive, organic peroxides or as oxidizing
- D. None of the above

98. Which of the following are assigned to one of two hazard categories on the basis of the outcome of the UN Test N.1?

- A. Substances and mixtures
- B. Ignition or pressure
- C. Substances and mixtures of this hazard class
- D. None of the above

### 3.1.8 Self-Reactive Substances

99. Which of the following are thermally unstable liquids or solids liable to undergo a strongly exothermic thermal decomposition even without participation of oxygen?

- A. Readily combustible solids
- B. Basis of the flash point
- C. Self-reactive substances
- D. None of the above

### 3.1.12 Substances which on Contact with Water Emit Flammable Gases

100. Substances that, in contact with water, emit flammable gases are solids or liquids that, by interaction with water, are liable to become spontaneously flammable or to give off \_\_\_\_\_ in dangerous quantities.

- A. Flammable solids
- B. Flammable gases
- C. Physical state or compressed gases
- D. None of the above

### 3.1.13 Oxidizing Liquids

101. Which of the following is a liquid which, while in itself not necessarily combustible, may, generally by yielding oxygen, cause or contribute to the combustion of other material?

- A. Readily combustible liquid
- B. Basis of the flash point
- C. An oxidizing liquid
- D. None of the above

102. Physical state or compressed gases of this hazard class are assigned to one of three hazard categories on the basis of test results which measure ignition or pressure rise time compared to defined mixtures.

- A. True
- B. False

### 3.1.14 Oxidizing Solids

103. An oxidizing solid is a solid which, while in itself not necessarily combustible, may, generally by yielding oxygen, cause or contribute to the?

- A. Combustion of other material
- B. Basis of the flash point
- C. Explosive, organic peroxides or as oxidizing
- D. None of the above

104. Substances and mixtures of this hazard class are assigned to one of three hazard categories on the basis of test results which measure mean burning time and?

- A. Substances and mixtures
- B. Ignition or pressure
- C. Re-compared to defined mixtures
- D. None of the above

105. Currently, several workplace hazard communication systems cover \_\_\_\_\_ as a class of chemicals.

- A. Oxidizers
- B. Critical temperatures
- C. Explosives
- D. None of the above

### 3.1.15 Organic Peroxides

106. An organic peroxide is an organic liquid or solid which contains the \_\_\_\_\_ and may be considered a derivative of hydrogen peroxide.

- A. Bivalent -0-0- structure
- B. Bivalent structure
- C. Trivalent -1-0- structure
- D. None of the above

107. The term also includes organic peroxide formulations, such substances and mixtures may: be liable to \_\_\_\_\_; burn rapidly; be sensitive to impact or friction; react dangerously with other substances.

- A. Melt
- B. Corrode
- C. Explosive decomposition
- D. None of the above

### 3.1.16 Substances Corrosive to Metal

108. A substance or a mixture that by \_\_\_\_\_ will materially damage, or even destroy, metals is termed 'corrosive to metal'.

- A. Substances and mixtures
- B. Chemical action
- C. Structure/activity or structure property
- D. None of the above

109. The concern in this case is the protection of metal equipment or installations in case of leakage, not \_\_\_\_\_ between the container/tank and the product. This hazard is not currently covered in all systems.

- A. Analysis of existing
- B. Corrosive
- C. Material compatibility
- D. None of the above

### 3.2 What are the GHS Health and Environmental Hazards?

110. The work at the OECD to develop the GHS criteria included: A thorough analysis of existing classification systems, including the \_\_\_\_\_ its rationale and an explanation of the mode of use;

- A. Analysis of existing
- B. Corrosive
- C. Scientific basis for a system and its criteria
- D. None of the above

111. A proposal for harmonized criteria for each category. For some categories, the harmonized approach was easy to develop because the existing systems had similar approaches. In cases where the approach was different, a compromise consensus proposal was developed.

- A. True
- B. False

112. Which of the following were established for substances and mixtures?

- A. Health criteria
- B. Analysis of existing
- C. Health and environmental criteria
- D. None of the above

### 3.2.2 Skin Corrosion

113. Which of the following means the production of irreversible damage to the skin following the application of a test substance for up to 4 hours?

- A. Skin corrosion
- B. Chemical action
- C. Structure/activity or structure property
- D. None of the above

114. Substances and mixtures in this \_\_\_\_\_ are assigned to a single harmonized corrosion category.

- A. Hazard class
- B. Chemical class
- C. Structure/activity or structure property
- D. None of the above

115. For Competent Authorities, such as transport packing groups, needing more than one designation for corrosivity, up to three subcategories are provided within the?

- A. Analysis
- B. Corrosive class
- C. Corrosive category
- D. None of the above

116. Several factors should be considered in determining the \_\_\_\_\_ before testing is initiated: Human experience showing irreversible damage to the skin;

- A. Corrosion potential
- B. Harmonized approach
- C. Structure/activity or structure property
- D. None of the above

117. Structure/activity or structure \_\_\_\_\_ to a substance or mixture already classified as corrosive.

- A. Substances and mixtures
- B. Chemical action
- C. Property relationship
- D. None of the above

### 3.2.3 Skin Irritation

118. Which of the following means the production of reversible damage to the skin following the application of a test substance for up to 4 hours?

- A. Analysis of existing
- B. Corrosive
- C. Skin irritation
- D. None of the above

119. Substances and mixtures in this hazard class are assigned to a single irritant category. For those authorities, such as pesticide regulators, wanting more than one designation for skin irritation, an additional?

- A. Substances and mixtures
- B. Mild irritant category is provided
- C. Structure/activity or structure property
- D. None of the above

120. Which of the following should be considered in determining the irritation potential before testing is initiated: Human experience or data showing reversible damage to the skin following exposure of up to 4 hours?

- A. Several factors
- B. Contact sensitizer
- C. Substances and mixtures in this hazard class
- D. None of the above

121. Structure/activity or structure property relationship to a substance or mixture already classified as?

- A. An irritant
- B. Skin sensitizer
- C. Serious physical decay
- D. None of the above

### 3.2.4 Eye Effects

122. Which of the following should be considered in determining the serious eye damage or eye irritation potential before testing is initiated?

- A. Several factors
- B. pH extremes
- C. Substances and mixtures in this hazard class
- D. None of the above

123. Structure/activity or structure property relationship to a \_\_\_\_\_ already classified; pH extremes like  $\leq 2$  and  $\geq 11.5$  that may produce serious eye damage.

- A. Test substance
- B. pH extreme
- C. Substance or mixture
- D. None of the above

124. Serious eye damage means the production of tissue damage in the eye, or serious physical decay of vision, following application of a test substance to the front surface of the eye, which is not fully reversible within \_\_\_\_\_ days of application

- A. 21
- B. 50
- C. 5
- D. None of the above

125. Which of the following in this hazard class are assigned to a single harmonized category?

- A. Several factors
- B. Contact sensitizer
- C. Substances and mixtures
- D. None of the above

126. Which of the following means changes in the eye following the application of a test substance to the front surface of the eye, which are fully reversible within 21 days of application?

- A. Test substance
- B. Skin sensitizer
- C. Eye irritation
- D. None of the above

127. Substances and mixtures in this hazard class are assigned to?

- A. Several factors
- B. Contact sensitizer
- C. A single harmonized hazard category
- D. None of the above

128. For authorities, such as pesticide regulators, wanting more than one designation for eye irritation, \_\_\_\_\_, depending on whether the effects are reversible in 21 or 7 days.

- A. Test substance
- B. Skin sensitizer
- C. One of two subcategories can be selected
- D. None of the above

### 3.2.5 Sensitization

129. Which of the following means a substance that induces hypersensitivity of the airways following inhalation of the substance?

- A. Several factors
- B. Hypersensitivity
- C. Respiratory sensitizer
- D. None of the above

130. Substances and mixtures in this hazard class are assigned to?

- A. Several factors
- B. pH extremes
- C. One hazard category
- D. None of the above

131. Skin sensitizer means a substance that will induce an allergic response following skin contact. The definition for "skin sensitizer" is equivalent to?

- A. Contact sensitizer
- B. Serious physical decay
- C. Reproductive and developmental effects
- D. None of the above

132. Substances and mixtures in this hazard class are assigned to?

- A. One hazard category
- B. Skin sensitizer
- C. Reproductive and developmental effects
- D. None of the above

133. Consideration should be given to classifying substances which cause immunological contact urticaria as?

- A. pH extremes
- B. Contact sensitizer
- C. Hypersensitivity
- D. None of the above

### 3.2.6 Germ Cell Mutagenicity

134. Which of the following means an agent giving rise to an increased occurrence of mutations in populations of cells and/or organisms?

- A. Mutagen
- B. Known or presumed mutagen
- C. Only in animal studies mutagen
- D. None of the above

### 3.2.7 Carcinogenicity

135. Which of the following means a chemical substance or a mixture of chemical substances which induce cancer or increase its incidence?

- A. Carcinogen
- B. The basis of viscosity
- C. Non-lethal target organ/systemic toxicity class (TOST)
- D. None of the above

136. Which of the following in this hazard class are assigned to one of two hazard categories?

- A. A single exposure
- B. Known or presumed
- C. Substances and mixtures
- D. None of the above

### 3.2.8 Reproductive Toxicity

137. Which of the following includes adverse effects on sexual function and fertility in adult males and females, as well as developmental toxicity in offspring?

- A. Reproductive toxicity
- B. The basis of viscosity
- C. Reproductive and developmental effects
- D. None of the above

138. Substances and mixtures with reproductive and/or developmental effects are assigned to one of two hazard categories, 'known or presumed' and?

- A. The harmonized criteria
- B. Suspected
- C. Only in animal studies
- D. None of the above

139. Category 1 has two subcategories for reproductive and?

- A. Developmental effects
- B. The basis of viscosity
- C. Non-lethal target organ/systemic toxicity class (TOST)
- D. None of the above

### 3.2.9 Target Organ Systemic Toxicity (TOST): Single Exposure & Repeated Exposure

140. Some existing systems distinguish between single and repeat exposure for these effects and?

- A. Some do not
- B. Known or presumed
- C. Non-lethal target organ/systemic toxicity class (TOST)
- D. None of the above

141. Which of the following not otherwise specifically included in the GHS, which can impair function, both reversible and irreversible, immediate and/or delayed are included in the non-lethal target organ/systemic toxicity class?

- A. Death
- B. All significant health effects
- C. Reproductive and developmental effects
- D. None of the above

142. Narcotic effects and \_\_\_\_\_ are considered to be target organ systemic effects following a single exposure.

- A. The harmonized criteria
- B. A single exposure
- C. Respiratory tract irritation
- D. None of the above

### 3.2.10 Aspiration Hazard

143. Which of the following includes severe acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death following aspiration?

- A. Death following aspiration
- B. Aspiration toxicity
- C. Reproductive and developmental effects
- D. None of the above

144. Which of the following is the entry of a liquid or solid directly through the oral or nasal cavity, or indirectly from vomiting, into the trachea and lower respiratory system?

- A. An aspiration hazard in humans
- B. Aspiration
- C. Non-lethal target organ/systemic toxicity class
- D. None of the above

145. Some hydrocarbons and certain chlorinated hydrocarbons have been shown to pose an \_\_\_\_\_ in humans.

- A. Death following aspiration
- B. Aspiration hazard
- C. Reproductive and developmental effects
- D. None of the above

146. Primary alcohols, and ketones have been shown to pose an \_\_\_\_\_ only in animal studies.

- A. Aspiration hazard in humans
- B. Aspiration hazard
- C. Non-lethal target organ/systemic toxicity class
- D. None of the above

147. Substances and mixtures of non-lethal target organ/systemic toxicity class are assigned to one of two hazard categories this hazard class on the basis of viscosity.

- A. True
- B. False

### 3.3 Environmental Hazards

#### 3.3.1 Hazardous to the Aquatic Environment

148. The harmonized criteria are \_\_\_\_\_ for packaged goods in both supply and use in multi-modal transport schemes.

- A. Considered suitable
- B. Known or presumed
- C. Only in animal studies
- D. None of the above

149. Acute aquatic toxicity be used for bulk land transport and bulk marine transport under MARPOL insofar as this uses aquatic toxicity.

- A. True
- B. False

#### 3.3.1.1 Acute Aquatic Toxicity

150. Which of the following means the intrinsic property of a material to cause injury to an aquatic organism in a short-term exposure?

- A. Acute aquatic toxicity
- B. Chronic aquatic toxicity
- C. Reproductive and developmental effects
- D. None of the above

151. Substances and mixtures of this hazard class are assigned to one of three toxicity categories on the basis of acute toxicity data: LC<sub>50</sub> or EC<sub>50</sub> or ErC<sub>50</sub>. In some regulatory systems these acute toxicity categories may be subdivided or?

- A. A single exposure
- B. Known or presumed
- C. Extended for certain sectors
- D. None of the above

### 3.3.1.2 Chronic Aquatic Toxicity

152. Which of the following means the potential or actual properties of a material to cause adverse effects to aquatic organisms during exposures that are determined in relation to the lifecycle of the organism?

- A. Acute aquatic toxicity
- B. Chronic aquatic toxicity
- C. Reproductive and developmental effects
- D. None of the above

153. Which of the following are assigned to one of four toxicity categories on the basis of acute data and environmental fate data: LC<sub>50</sub> or EC<sub>50</sub> or ErC<sub>50</sub>?

- A. Cutoff value/concentration limits
- B. Two or more substances
- C. Substances and mixtures in this hazard class
- D. None of the above

154. While experimentally derived test data are preferred, where no experimental data are available, validated Quantitative Structure Activity Relationships for aquatic toxicity and log KOW may be used in the?

- A. Classification process
- B. Potential or actual properties
- C. Stability of the substance or changing its composition
- D. None of the above

### 3.4 What is the GHS approach to classifying mixtures?

155. For consistency and understanding \_\_\_\_\_ the GHS defines certain terms.

- A. Cutoff value/concentration limits
- B. Provisions for classifying mixtures
- C. Degradation/bioaccumulation
- D. None of the above

156. Substance: Chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the \_\_\_\_\_ or changing its composition.

- A. No experimental data
- B. Potential or actual properties
- C. Stability of the substance
- D. None of the above

157. Mixture: Mixtures or solutions composed of \_\_\_\_\_ in which they do not react.

- A. Potential or actual properties
- B. Hazards
- C. Two or more substances
- D. None of the above

158. Alloy: An alloy is a metallic material, \_\_\_\_\_, consisting of two or more elements so combined that they cannot be readily separated by mechanical means.

- A. Homogeneous on a macroscopic scale
- B. Hazardous properties of chemicals
- C. Complex substance
- D. None of the above

159. Where impurities, additives or individual constituents of a substance or mixture have been identified and are themselves classified, they should be taken into account during classification if they exceed the cutoff value/concentration limit for a?

- A. Cutoff value/concentration limit
- B. Given hazard class
- C. Degradation/bioaccumulation
- D. None of the above

### 3.5 What are bridging principles?

160. Which of the following are an important concept in the GHS for classifying untested mixtures?

- A. Bridging principles
- B. Potential or actual properties
- C. Stability of the substance or changing its composition
- D. None of the above

161. Dilution: If a mixture is diluted with a diluent that has an equivalent or lower toxicity, then the hazards of the new mixture are assumed to?

- A. Cutoff value/concentration limit
- B. Hazards
- C. Be equivalent to the original
- D. None of the above

162. Batching: If a batch of a complex substance is produced under \_\_\_\_\_ then the hazards of the new batch are assumed to be equivalent to the previous batches.

- A. GHS
- B. Potential or actual properties
- C. Controlled process
- D. None of the above

163. Concentration of Highly Toxic Mixtures: If a mixture is severely hazardous, then a concentrated mixture is also assumed to?

- A. Be severely hazardous
- B. Hazards
- C. Two or more substances
- D. None of the above

164. Interpolation within One Toxic Category: Mixtures having component concentrations within a range where the hazards are known are assumed to have those?

- A. Known hazards
- B. Potential or actual properties
- C. Stability of the substance or changing its composition
- D. None of the above

165. Substantially Similar Mixtures: Slight changes in the concentrations of components are not expected to change the hazards of a mixture and substitutions involving toxicologically similar components are not expected to change the?

- A. Hazards of a mixture
- B. Hazards
- C. Two or more substances
- D. None of the above

166. Aerosols: An aerosol form of a mixture is assumed to have the same \_\_\_\_\_ as the tested, non-aerosolized form of the mixture unless the propellant affects the hazards upon spraying.

- A. Cutoff value/concentration limit
- B. Hazards
- C. Degradation/bioaccumulation
- D. None of the above

167. All bridging principles do not apply to every health and environmental endpoint. Consult each endpoint to determine which \_\_\_\_\_ apply.

- A. Bridging principles
- B. Chemical products
- C. Safety Data Sheets
- D. None of the above

168. When the bridging principles do not apply or \_\_\_\_\_, the health and environmental hazards of mixtures are estimated based on component information.

- A. Cannot be used
- B. Can be used
- C. Hazardous properties of chemicals
- D. None of the above

#### 4.0 Hazard Communication

169. As in existing systems, labels and \_\_\_\_\_ are the main tools for chemical hazard communication. They identify the hazardous properties of chemicals that may pose a health, physical or environmental hazard during normal handling or use.

- A. Safety Data Sheets
- B. Chemical products
- C. Hazardous properties of chemicals
- D. None of the above

170. Which of the following is to identify the intrinsic hazards found in chemical substances and mixtures, and to convey information about these hazards?

- A. GHS
- B. Chemical products
- C. The goal of the GHS
- D. None of the above

171. The international mandate for the GHS included the development of a harmonized hazard communication system, including labeling, Safety Data Sheets and easily understandable symbols, based on the classification criteria developed for the?

- A. GHS
- B. Chemical products
- C. Safety Data Sheets
- D. None of the above

#### 4.1 What factors influenced development of the GHS communication tools?

172. Early in the process of developing \_\_\_\_\_ several significant issues were recognized.

- A. GHS communication tools
- B. Chemical products
- C. Safety Data Sheets
- D. None of the above

173. One of the most important was comprehensibility of the information provided. After all, the aim of the system is to present hazard information in a manner that the intended audience can easily understand and that will thus minimize the possibility of adverse effects resulting from?

- A. Exposure
- B. Environmental hazards
- C. Safety Data Sheets
- D. None of the above

174. The GHS identifies some guiding principles to assist in this process: Information should be conveyed in more than one way, e.g.?

- A. Text and symbols
- B. Hazardous properties of chemicals
- C. Safety Data Sheets
- D. None of the above

175. The comprehensibility of the components of the system should take account of existing studies and literature as well as any evidence gained from?

- A. Environmental hazards
- B. Testing
- C. Hazardous properties of chemicals
- D. None of the above

176. The phrases used to indicate degree (severity) of hazard should be consistent across the health, physical and?

- A. Environmental hazards
- B. Chemical products
- C. Hazardous properties of chemicals
- D. None of the above

## 4.2 Labels

### 4.2.1 What does a label look like?

177. Existing systems have labels that look different for the same product. We know that this leads to worker confusion, consumer uncertainty and the need for additional resources to maintain different systems.

- A. True      B. False

178. Different agencies regulate the workplace, consumers, agricultural chemicals and transport \_\_\_\_\_ for these sectors/target audiences vary both in the U.S. and globally.

- A. Labels                      C. Safety Data Sheets  
B. Chemical products      D. None of the above

### Transport and Emergency Responders

179. For hazardous products being transported, outer containers have required label elements, product identifier and hazard symbols \_\_\_\_\_ are in addition to workplace or end use label requirements.

- A. Transportation requirements      C. Safety Data Sheets  
B. Environmental hazards              D. None of the above

### Agricultural Chemicals and Pesticides

180. A pesticide product with the same hazards as ToxiFlam would have a label developed using?

- A. Pictogram                      C. Purple Book  
B. FIFRA requirements          D. None of the above

181. Which of the following has requirements for product identity, chemical identity, signal word, hazard statements, and precautionary measures including first aid?

- A. GHS pictogram                  C. FIFRA  
B. Hazard statements              D. None of the above

### 4.3 What are the GHS label elements?

182. Some \_\_\_\_\_ have been standardized (identical with no variation) and are directly related to the endpoints and hazard level. Other label elements are harmonized with common definitions and/or principles.

- A. Pictogram                      C. GHS label elements  
B. Hazards                        D. None of the above

The standardized label elements included in the GHS are:

183. Symbols: Convey health, physical and environmental hazard information, assigned to a?

- A. GHS pictogram      C. GHS hazard class and category  
B. GHS hazards      D. None of the above

184. Signal Words: "Danger" or "Warning" are used to emphasize hazards and indicate the relative level of severity of the hazard, assigned to a?

- A. GHS                      C. GHS hazard class and category  
B. Hazards                D. None of the above

185. Hazard Statements: Standard phrases assigned \_\_\_\_\_ and category that describe the nature of the hazard.

- A. GHS pictogram
- B. GHS symbols
- C. Hazard class
- D. None of the above

186. The symbols, signal words, and hazard statements have all been standardized and assigned to specific hazard categories and classes, as appropriate. This approach makes it easier for countries to implement the system and should make it easier for companies to comply with regulations based on the?

- A. GHS
- B. Hazards
- C. GHS hazard class and category
- D. None of the above

187. The use of symbols, signal words or hazard statements other than those that have been assigned to each \_\_\_\_\_ would be contrary to harmonization.

- A. GHS pictogram
- B. GHS hazards
- C. FIFRA
- D. None of the above

188. The Section numbers refer to the sections in \_\_\_\_\_ or "Purple Book".

- A. Pictogram
- B. Hazards
- C. GHS Document
- D. None of the above

#### 4.3.1 Symbols/Pictograms

189. The GHS symbols have been incorporated into pictograms for use on the?

- A. GHS pictogram
- B. GHS hazards
- C. GHS label
- D. None of the above

190. For transport, \_\_\_\_\_ will have the background, symbol and colors currently used in the UN Recommendations on the Transport of Dangerous Goods, Model Regulations.

- A. Pictograms
- B. Hazards
- C. Purple Book
- D. None of the above

191. A black frame may be used for shipments within one country. Where a transport pictogram appears, the \_\_\_\_\_ for the same hazard should not appear.

- A. GHS pictograms
- B. GHS hazards
- C. FIFRA
- D. None of the above

#### 4.3.2 Signal Words

192. The signal word indicates the relative degree of?...

- A. Pictogram
- B. GHS
- C. Severity a hazard
- D. None of the above

193. "Danger" for the more?

- A. GHS pictogram
- B. GHS hazards
- C. Severe hazards
- D. None of the above

194. "Warning" for the?  
A. Pictogram                      C. Less severe hazards  
B. Hazards                        D. None of the above

195. Which of the following are standardized and assigned to the hazard categories within endpoints?  
A. GHS pictogram      C. Signal words  
B. GHS hazards        D. None of the above

#### 4.3.3 Hazard Statements

196. An appropriate statement for each \_\_\_\_\_ should be included on the label for products possessing more than one hazard.  
A. GHS pictogram      C. Signal words  
B. GHS hazard         D. None of the above

#### Other GHS label elements include:

197. Precautionary Statements and \_\_\_\_\_: Measures to minimize or prevent adverse effects.  
A. Pictograms            C. Signal words  
B. GHS symbols         D. None of the above
198. Product Identifier: Name or number used for a hazardous product on a label or in the?  
A. GHS pictogram      C. SDS  
B. GHS symbols        D. None of the above

199. Supplier identification: The name, address and telephone number should be provided on?  
A. The label                C. Prevent adverse effects  
B. GHS label               D. None of the above

200. Supplemental information?  
A. Name or number                      C. Non-harmonized information  
B. UN proper shipping name         D. None of the above

#### 4.3.4 Precautionary Statements and Pictograms

201. First aid is included in?  
A. Annex 3                      C. Precautionary information  
B. GHS label                    D. None of the above
202. Which of the following includes four types of precautionary statements covering: prevention, response in cases of accidental spillage or exposure, storage, and disposal?  
A. Annex 3                      C. UN proper shipping name  
B. The label                     D. None of the above

203. The precautionary statements have been linked to each \_\_\_\_\_ and type of hazard. The goal is to promote consistent use of precautionary statements.  
A. The label                    C. GHS hazard statement  
B. GHS label                    D. None of the above

204. Which of the following is guidance and is expected to be further refined and developed over time?

- A. Annex 3
- B. GHS label
- C. Precautionary information
- D. None of the above

#### 4.3.5 Product Identifier (Ingredient Disclosure)

205. A product identifier should be used on a GHS label and it should match the product identifier used on the?

- A. Annex 3
- B. The label
- C. SDS
- D. None of the above

206. The GHS label for a substance should include the \_\_\_\_\_ of the substance (name as determined by IUPAC, ISO, CAS or technical name).

- A. The label
- B. Chemical identity
- C. Prevent adverse effects
- D. None of the above

207. The label should include the chemical identities of all ingredients that contribute to acute toxicity, skin corrosion or serious eye damage, germ cell mutagenicity, carcinogenicity, reproductive toxicity, skin or respiratory sensitization, or Target Organ Systemic Toxicity, when these hazards appear on?

- A. Name or number
- B. The label
- C. Non-harmonized information
- D. None of the above

208. Where a product is supplied exclusively for workplace use, the Competent Authority may give suppliers discretion to include chemical identities on \_\_\_\_\_ in lieu of including them on labels.

- A. Name or number
- B. The label
- C. SDS
- D. None of the above

209. Which of the following rules for confidential business information (CBI) take priority over the rules for product identification?

- A. Annex 3 Rules
- B. GHS Rules
- C. The Competent Authority rules
- D. None of the above

#### 4.3.6 Supplier Identification

210. The name, address and telephone number of the manufacturer or supplier of the product should be provided on?

- A. The label
- B. Precautionary information
- C. Prevent adverse effects
- D. None of the above

#### 4.3.7 Supplemental Information

211. Supplemental label information is non-harmonized information on the container of a hazardous product that is not required or specified under the?

- A. Corrosive symbol
- B. Supplemental information
- C. GHS
- D. None of the above

212. Which of the following provides guidance to ensure that supplemental information does not lead to wide variation in information or undermine the GHS information?

- A. Corrosive symbol
- B. Supplemental information
- C. GHS
- D. None of the above

213. Supplemental information may be used to provide further detail that does not contradict or cast doubt on the validity of the standardized hazard information. It also may be used to provide information about hazards not yet incorporated into the?

- A. Corrosive symbol
- B. Supplemental information
- C. GHS
- D. None of the above

214. The labeler should have the option of providing supplementary information related to the hazard, such as physical state or route of exposure, with the?

- A. Hazard class
- B. Hazard statement
- C. Health hazard symbol
- D. None of the above

#### 4.4 How are multiple hazards handled on labels?

215. Where a substance or mixture presents more than one GHS hazard, there is a \_\_\_\_\_ for pictograms and signal words.

- A. Corrosive symbol
- B. Supplemental information
- C. GHS precedence scheme
- D. None of the above

216. If the skull and crossbones applies, \_\_\_\_\_ should not appear;

- A. Exclamation mark
- B. GHS hazard pictogram
- C. GHS label
- D. None of the above

217. If the corrosive symbol applies, \_\_\_\_\_ should not appear where it is used for skin or eye irritation;

- A. Exclamation mark
- B. Supplemental information
- C. Actual label format or layout
- D. None of the above

218. If the health hazard symbol appears for respiratory sensitization, \_\_\_\_\_ should not appear where it is used for skin sensitization or for skin or eye irritation.

- A. Exclamation mark
- B. GHS hazard pictograms
- C. GHS label
- D. None of the above

219. If the signal word 'Danger' applies, the signal word 'Warning' should not appear. All assigned \_\_\_\_\_ should appear on the label.

- A. Hazard statements
- B. Corrosive symbol
- C. Actual label format or layout
- D. None of the above

#### 4.5 Is there a specific GHS label format / layout?

220. The GHS hazard pictograms, signal word and \_\_\_\_\_ should be located together on the label.

- A. Hazard statement
- B. Supplemental information
- C. Health hazard symbol
- D. None of the above

221. The actual label format or layout is not specified in the?

- A. Supplemental information
- B. GHS
- C. Actual label format or layout
- D. None of the above

#### 4.7 Are workplace containers covered in the GHS ?

222. Products falling within the scope of the GHS will carry the \_\_\_\_\_ at the point where they are supplied to the workplace, and that label should be maintained on the supplied container in the workplace.

- A. Hazard statement
- B. GHS label
- C. Health hazard symbol
- D. None of the above

223. The Competent Authority can allow employers to use alternative means of giving workers the same information in a different written or displayed format when such a format is more appropriate to the workplace and communicates the information as effectively as the?

- A. GHS label
- B. Supplemental information
- C. Actual label format or layout
- D. None of the above

224. Which of the following could be displayed in the work area, rather than on the individual containers?

- A. Label information
- B. Corrosive symbol
- C. Actual label format or layout
- D. None of the above

225. Some examples of workplace situations where chemicals may be transferred from supplier containers include: containers for laboratory testing, storage vessels, piping or \_\_\_\_\_ or temporary containers where the chemical will be used by one worker within a short timeframe.

- A. Process reaction systems
- B. Supplemental information
- C. Actual label format or layout
- D. None of the above

#### 4.8 What is the GHS Safety Data Sheet (SDS)?

226. The Safety Data Sheet provides comprehensive information for use in?

- A. SDS information
- B. Training requirements
- C. Workplace chemical management
- D. None of the above

227. Employers and workers use \_\_\_\_\_ about hazards and to obtain advice on safety precautions.

- A. SDS as sources of information
- B. Training requirements
- C. GHS SDS content and format
- D. None of the above

228. The SDS is product related and, usually, is able to provide information that is GHS SDS content and format for any given workplace where the product may be used.

- A. True
- B. False

229. Which of the following enables the employer to develop an active program of worker protection measures, including training, which is specific to the individual workplace and to consider any measures that may be necessary to protect the environment?

- A. SDS information
- B. New and significant
- C. MSDS/SDS content
- D. None of the above

230. Which of the following also provides a source of information for other target audiences such as those involved with the transport of dangerous goods, emergency responders, poison centers, those involved with the professional use of pesticides and consumers.

- A. Information in a SDS
- B. New and significant
- C. MSDS/SDS content
- D. None of the above

#### 4.9 What is the difference between the GHS SDS and existing MSDS/SDSs?

231. SDSs are in use globally. So it is useful to have an understanding of the similarities and differences in the existing MSDS/SDS content and format and the?

- A. New and significant
- B. Competent Authority
- C. GHS SDS content and format
- D. None of the above

#### 4.10 When should SDSs and labels be updated?

232. All hazard communication systems should specify a means of responding in an appropriate and timely manner to new information and updating labels and?

- A. SDS information
- B. The revised HCS
- C. MSDS/SDS content
- D. None of the above

233. Which of the following may choose to specify a time limit within which the information should be revised?

- A. SDS information
- B. Competent Authority
- C. MSDS/SDS content
- D. None of the above

234. Suppliers should respond to " \_\_\_\_\_ " information they receive about a chemical hazard by updating the label and safety data sheet for that chemical.

- A. New and significant
- B. Competent Authority
- C. GHS SDS content and format
- D. None of the above

235. Which of the following information is any information that changes the GHS classification and leads to a change in the label information?

- A. New and significant
- B. Competent Authority
- C. GHS SDS content and format
- D. None of the above

#### 4.11 How does the GHS address Confidential Business Information (CBI)?

236. Confidential business information will not be harmonized under the GHS. National authorities should establish appropriate mechanisms for?

- A. OSHA
- B. CBI protection
- C. Revised Hazard Communication Standard (HCS)
- D. None of the above

237. The GHS established CBI principles which include: \_\_\_\_\_ should not compromise the health and safety of users;

- A. Mechanisms
- B. The revised HCS
- C. CBI provisions
- D. None of the above

238. Which of the following claims should be limited to the names of chemicals and their concentrations in mixtures?

- A. OSHA
- B. CBI
- C. Revised Hazard Communication Standard (HCS)
- D. None of the above

239. Mechanisms should be established for disclosure in emergency and?

- A. Non-emergency situations
- B. Alternative labeling systems
- C. Additional target audiences
- D. None of the above

#### 4.12 Does the GHS address training?

240. Which of the following should be appropriate for and commensurate with the nature of the work or exposure?

- A. The labels
- B. Warning labels
- C. Training requirements
- D. None of the above

241. Key target audiences include workers, emergency responders and those responsible for?

- A. The revised HCS
- B. Alternative labeling systems
- C. Developing labels and SDSs
- D. None of the above

242. These should include training for persons involved in transport and strategies required for educating consumers in \_\_\_\_\_ on products that they use.

- A. Interpreting label information
- B. Warning labels
- C. Revised Hazard Communication Standard
- D. None of the above

#### How will labels change under the revised Hazard Communication Standard? For QA/QC these question may repeat.

243. Under \_\_\_\_\_ once the hazard classification is completed, the standard specifies what information is to be provided for each hazard class and category.

- A. The revised HCS
- B. Alternative labeling systems
- C. The chemical manufacturer
- D. None of the above

#### Can I use a black border on pictograms for domestic shipment?

244. Under the \_\_\_\_\_, pictograms must have red borders. OSHA believes that the use of the red frame will increase recognition and comprehensibility.

- A. OSHA
- B. Warning labels
- C. Revised Hazard Communication Standard (HCS)
- D. None of the above

#### Will OSHA allow blank red borders?

245. If \_\_\_\_\_ were to allow blank red borders, workers may be confused about what they mean and concerned that some information is missing.

- A. OSHA
- B. Alternative labeling systems
- C. The chemical manufacturer
- D. None of the above

246. Which of the following has determined that prohibiting the use of blank red borders on labels is necessary to provide the maximum recognition and impact of warning labels and to ensure that users do not get desensitized to the warnings placed on labels?

- A. OSHA
- B. Warning labels
- C. Revised Hazard Communication Standard (HCS)
- D. None of the above

#### When must label information be updated?

247. In the revised Hazard Communication Standard, OSHA is lifting the stay on enforcement regarding the provision to update labels when \_\_\_\_\_ becomes available.

- A. New information on hazards
- B. Alternative labeling systems
- C. The chemical manufacturer
- D. None of the above

248. Chemical manufacturers, importers, distributors, or employers who become newly aware of any significant information regarding the hazards of a chemical shall \_\_\_\_\_ within **six months** of becoming aware of the new information, and shall ensure that labels on containers of hazardous chemicals shipped after that time contain the new information.

- A. OSHA
- B. Revise the training requirements
- C. Revise the labels for the chemical
- D. None of the above

249. If the chemical is not currently produced or imported, the chemical manufacturer, importer, distributor, or employer shall add the information to \_\_\_\_\_ before the chemical is shipped or introduced into the workplace again.

- A. The label
- B. Alternative labeling systems
- C. Additional target audiences
- D. None of the above

**How will workplace labeling provisions be changing under the revised Hazard Communication Standard?**

250. The current standard provides employers with flexibility regarding the type of system to be used in their workplaces and OSHA has retained that flexibility in the?

- A. Warning labels
- B. The labels
- C. Revised Hazard Communication Standard (HCS)
- D. None of the above

251. Employers may choose to label workplace containers either with the same label that would be on shipped containers for the chemical under the revised rule, or with label alternatives that meet the?

- A. Mechanisms
- B. Requirements for the standard
- C. Additional target audiences
- D. None of the above

252. Which of the following such as the National Fire Protection Association 704 Hazard Rating and the Hazardous Material Information System are permitted for workplace containers?

- A. OSHA
- B. Training requirements
- C. Alternative labeling systems
- D. None of the above

**How is the Safety Data Sheet (SDS) changing under the revised Hazard Communication Standard?**

253. The information required on the safety data sheet (SDS) will remain essentially the same as that in the?

- A. HCS
- B. OSHA
- C. Current standard
- D. None of the above

254. The revised HCS requires that the information on the SDS is presented using consistent headings in a?.

- A. EPA
- B. OSHA
- C. Specified sequence
- D. None of the above

**Will TLVs be required on the Safety Data Sheet (SDS)?**

255. OSHA finds that requiring TLVs on the \_\_\_\_\_ will provide employers and employees with useful information to help them assess the hazards presented by their workplaces.

- A. HCS
- B. OSHA
- C. SDS
- D. None of the above

256. OSHA \_\_\_\_\_, and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet are also required.

- A. SDS
- B. OSHA
- C. Permissible exposure limits (PELs)
- D. None of the above

**May the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) lists be used to make carcinogen classifications?**

257. In the revised Hazard Communication Standard, \_\_\_\_\_ has provided classifiers with the option of relying on the classification listings of IARC and NTP to make classification decisions regarding carcinogenicity, rather than applying the criteria themselves.

- A. SDS
- B. OSHA
- C. Permissible exposure limits (PELs)
- D. None of the above

258. Which of the following has provided in non-mandatory Appendix F of the revised rule, guidance on hazard classification for carcinogenicity?

- A. HCS
- B. OSHA
- C. Threshold Limit Values (TLVs)
- D. None of the above

**Will the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) classifications be required on the Safety Data Sheet (SDS)?**

259. If OSHA finds a chemical to be a carcinogen, it must be noted on \_\_\_\_\_ as well.

- A. SDS
- B. HCS
- C. Permissible exposure limits (PELs)
- D. None of the above

**How has OSHA addressed hazards covered under the current Hazard Communication Standard that have not been addressed by the GHS?**

260. OSHA provided several examples: simple asphyxiants, and combustible dust in a separate category called?

- A. SDS
- B. Unclassified Hazards
- C. Hazardous chemical
- D. None of the above

**How has OSHA addressed pyrophoric gases, simple asphyxiants, and combustible dust?**

261. In the revised Hazard Communication Standard (HCS), OSHA has added pyrophoric gases, simple asphyxiants and combustible dust to the definition of?

- A. SDS
- B. Unclassified Hazards
- C. Hazardous chemical
- D. None of the above

**Pyrophoric gases:**

262. OSHA has provided label elements for pyrophoric gases which include the signal word "danger" and the \_\_\_\_\_ "catches fire spontaneously if exposed to air".

- A. OSHA
- B. Hazard statement
- C. Unclassified Hazards
- D. None of the above

**Simple asphyxiants:**

263. In the final HCS, simple asphyxiants must be labeled where appropriate, and be addressed on?

- A. SDS
- B. Hazard statement
- C. Hazardous chemical
- D. None of the above

264. OSHA has provided label elements for simple asphyxiants which include the signal word " \_\_\_\_\_ " and the hazard statement "may displace oxygen and cause rapid suffocation".

- A. Warning
- B. Hazard statement
- C. Unclassified Hazards
- D. None of the above

**Combustible dust:**

265. OSHA has **not** provided a definition for combustible dust to \_\_\_\_\_ given ongoing activities in the specific rulemaking, as well as in the United Nations Sub-Committee of Experts on the GHS.

- A. SDSs
- B. Final HCS
- C. Label
- D. None of the above

266. Label elements are provided for combustible dust in the final HCS and include the signal word " \_\_\_\_\_ " and the hazard statement "May form combustible dust concentrations in the air".

- A. Warning
- B. Hazard statement
- C. Unclassified Hazards
- D. None of the above

267. For chemicals in a solid form that do not present a combustible dust hazard, but may form combustible dusts while being processed in normal downstream uses, paragraph (f)(4) of the HCS allows the chemical manufacturer some flexibility in?

- A. Labeling requirements
- B. Revised HCS
- C. Clarification of text
- D. None of the above

268. The manufacturer or importer to may transmit the label to the customer at the time of the initial shipment, but \_\_\_\_\_ does not need to be included with subsequent shipments unless it changes.

- A. SDSs
- B. HCS
- C. The label
- D. None of the above

269. This provides the needed information to the downstream users on the \_\_\_\_\_ in the workplace, while acknowledging that the solid metal or other materials do not present the same hazards that are produced when these materials are processed under normal conditions of use.

- A. Potential hazards
- B. Hazard statement
- C. Hazardous chemical
- D. None of the above

**What are the estimated benefits attributable to the revised Hazard Communication Standard?**

270. Which of the following expects that the modifications to the Hazard Communication Standard will result in increased safety and health for the affected employees and reduce the numbers of accidents, fatalities, injuries?

- A. OSHA
- B. HCS
- C. NFPA
- D. None of the above

271. The GHS revisions to the \_\_\_\_\_ for labeling and safety data sheets would enable employees exposed to workplace chemicals to more quickly obtain and to more easily understand information about the hazards associated with those chemicals.

- A. HCS standard
- B. Revised HCS
- C. Clarification of text
- D. None of the above

272. In addition, the revisions to \_\_\_\_\_ are expected to improve the use of appropriate exposure controls and work practices that can reduce the safety and health risks associated with exposure to hazardous chemicals.

- A. SDSs
- B. HCS
- C. Label
- D. None of the above

273. OSHA estimates that \_\_\_\_\_ will result in the prevention of 43 fatalities and 585 injuries and illnesses annually.

- A. OSHA
- B. HCS
- C. Revised HCS
- D. None of the above

274. OSHA estimates that \_\_\_\_\_ will result in savings of \$475.2 million from productivity improvements for health and safety managers and logistics personnel, \$32.2 million during periodic updating of SDSs and labels, and \$285.3 million from simplified hazard communication training.

- A. SDSs
- B. HCS
- C. Revised HCS
- D. None of the above

275. The revised HCS will result in four types of productivity benefits: (1) for chemical manufacturers, because they will need to produce fewer SDSs in future years; (2) for employers, in providing training to new employees as required by \_\_\_\_\_ through the improved consistency of the labels and SDSs. (3) for firms engaging in, or considering engaging in, international trade.

- A. OSHA
- B. HCS
- C. Existing OSHA HCS
- D. None of the above

**I understand that the United Nations revises the GHS every two years. How will OSHA manage and communicate changes to the Hazard Communication Standard?**

276. It is expected that \_\_\_\_\_ will be a living document and is expected to remain up-to-date and relevant; therefore, further changes may be adopted on a two-year cycle.

- A. GHS
- B. Employers and employees
- C. Normal conditions of use
- D. None of the above

**The NEW OSHA Hazard Communication Standard (HCS)  
1910.1200(a)(1)**

277. The purpose of this section is to ensure that the hazards of all chemicals produced or imported are classified, and that information concerning the classified hazards is transmitted to employers and employees.

- A. True
- B. False

278. Which of the following of this section are intended to be consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals?

- A. Hazards
- B. Requirements
- C. Hazardous chemicals
- D. None of the above

279. Which of the following is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, safety data sheets and employee training?

- A. Labeling regulations
- B. Transmittal of information
- C. Handle chemicals in sealed containers
- D. None of the above

**1910.1200(a)(2)**

280. This occupational safety and health standard is intended to address comprehensively the issue of classifying \_\_\_\_\_ of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, and to preempt any legislative or regulatory enactments of a state, or political subdivision of a state, pertaining to this subject.

- A. Any pesticide
- B. Hazardous waste
- C. Potential hazards
- D. None of the above

**1910.1200(b)(4)**

281. In work operations where employees only handle chemicals in sealed containers which are not opened under normal conditions of use.

- A. True
- B. False

**1910.1200(b)(4)(ii)**

282. Employers shall maintain copies of any safety data sheets that are received with incoming shipments of the sealed containers of hazardous chemicals, shall obtain a safety data sheet as soon as possible for sealed containers of \_\_\_\_\_ received without a safety data sheet if an employee requests the safety data sheet.

- A. Hazards
- B. Hazardous waste
- C. Hazardous chemicals
- D. None of the above

**1910.1200(b)(5)(i)**

283. Any pesticide as such term is defined in the Federal Insecticide, Fungicide, and Rodenticide Act, when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the?

- A. Hazards
- B. CERCLA
- C. Environmental Protection Agency
- D. None of the above

**1910.1200(b)(5)(ii)**

284. Any chemical substance or mixture as such terms are defined in the Toxic Substances Control Act, when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the?

- A. Hazards
- B. CERCLA
- C. Environmental Protection Agency
- D. None of the above

**1910.1200(b)(6)(i)**

285. Any hazardous waste as such term is defined by the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, when subject to regulations issued under that Act by the?

- A. Hazards
- B. CERCLA
- C. Environmental Protection Agency
- D. None of the above

**1910.1200(b)(6)(ii)**

286. Any hazardous substance as such term is defined by the Comprehensive Environmental Response, Compensation and Liability Act when the hazardous substance is the focus of remedial or removal action being conducted under \_\_\_\_\_ in accordance with Environmental Protection Agency regulations.

- A. Hazards
- B. CERCLA
- C. Environmental Protection Agency
- D. None of the above

**1910.1200(c)**

287. Which of the following means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture?

- A. Any pesticide
- B. Hazardous waste
- C. Article
- D. None of the above

288. Which of the following means a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies?

- A. Employee
- B. Employer
- C. Responsible party
- D. None of the above

289. Which of the following means a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor?

- A. Importer
- B. Employer
- C. Designated representative
- D. None of the above

290. Which of the following means any individual or organization to whom an employee gives written authorization to exercise such employee's rights?

- A. Importer
- B. Employer
- C. Designated representative
- D. None of the above

291. Which of the following means to manufacture, process, formulate, blend, extract, generate, emit, or repackage?

- A. Produce
- B. Hazard category
- C. Precautionary statement
- D. None of the above

292. Which of the following means the name or number used for a hazardous chemical on a label or in the SDS?

- A. Product identifier
- B. Hazard category
- C. Foreseeable emergency
- D. None of the above

293. Which of the following means a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard?

- A. Common name
- B. Hazard statement
- C. Hazardous chemical
- D. None of the above

294. Which of the following means any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified?

- A. Common name
- B. Hazard statement
- C. Hazardous chemical
- D. None of the above

295. Which of the following means a chemical which is classified as posing one of the following hazardous effects: acute toxicity; skin corrosion or irritation; serious eye damage or eye irritation?

- A. Common name
- B. Health hazard
- C. Hazardous chemical
- D. None of the above

296. Which of the following means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that could result in an uncontrolled release of a hazardous chemical into the workplace?

- A. Product identifier
- B. Hazard category
- C. Foreseeable emergency
- D. None of the above

297. Which of the following means the division of criteria within each hazard class, e.g., oral acute toxicity and flammable liquids include four hazard categories?

- A. Product identifier
- B. Hazard category
- C. Foreseeable emergency
- D. None of the above

298. Which of the following means that an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential exposure?

- A. Exposure or exposed
- B. Hazard statement
- C. Health hazard
- D. None of the above

299. Which of the following means any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name?

- A. Common name
- B. Brand name
- C. Hazardous chemical name
- D. None of the above

300. Which of the following means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical?

- A. Common name
- B. Container
- C. Hazardous chemical
- D. None of the above

**You are finished with your assignment.**