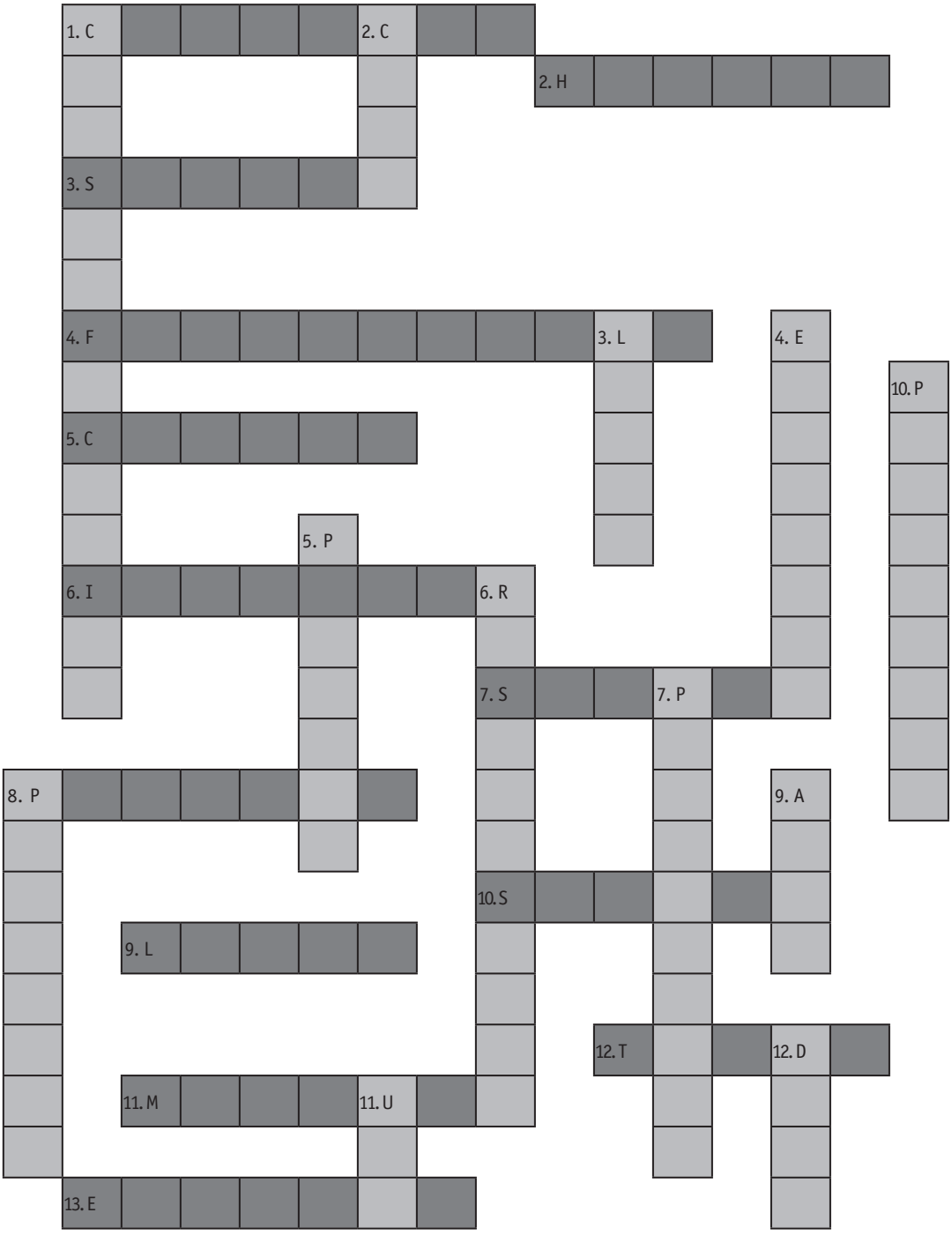
Activity 3.1 29 CFR 1910.1200(c), HCS Definitions—Crossword Puzzle



Activity 3.1 29 CFR 1910.1200(c), HCS Definitions—Crossword Puzzle Clues

Across

1. _____ is any substance, or mixture of substances.

2. _____ *hazard* is a chemical that is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard. The criteria for determining whether a chemical is classified as a health hazard are detailed in Appendix A to §1910.1200—Health Hazard Criteria.

3. _____ *word* is a word that indicates the relative level of a hazard's severity and alerts the worker to a potential hazard. The signal words used in this section are "danger" and "warning." "Danger" is used for more severe hazards, while "warning" is used for less severe hazards.

4. _____ *emergency* is any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that could result in the uncontrolled release of a hazardous chemical into the workplace.

5. _____ *name* is 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.

6. _____ is the first business with employees of the Customs Territory of the United States, which receives hazardous chemicals produced in other countries for the purpose of supplying them to distributors or employers within the United States.

7. To determine an employee's exposure to a hazardous chemical, an air _____ could be collected from the employee's breathing zone, even though this type of assessment is not required by the OSHA Hazard Communication Standard.

8. A(n) _____ *identifier* is the unique name or number used to identify a hazardous chemical on a label or in the SDS. The identifier used shall permit cross-references to be made among the hazardous chemicals listed in the written hazard communication program, on the label, and in the SDS.

9. _____ is written, printed, or graphic information that is affixed to, printed on, or attached directly to the container of a hazardous chemical or to the outside packaging.

10. _____ *asphyxiant* is a substance or mixture that displaces oxygen in the ambient atmosphere and can thus cause oxygen deprivation in those who are exposed to it, leading to unconsciousness and death.

11. _____ is a combination or a solution of two or more substances that do not react to each other.

12. _____ *secret* is any confidential formula, pattern, process, device, information, or compilation of information that is used in an employer's business and that allows the employer to obtain an advantage over competitors that do not know or use it. Appendix E to §1910.1200—Definition of Trade Secret—sets out the criteria to be used in evaluating trade secrets.

13. *Exposure* or _____ occurs when an employee is subjected in the course of employment to a chemical that is a physical or health hazard, including potential (e.g., accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (e.g., inhalation, ingestion, skin contact, or absorption).

Down

1. _____ involves identifying the relevant data regarding a chemical's hazards, reviewing those data to ascertain the chemical's hazards, and deciding whether the chemical will be classified as hazardous according to the definition of hazardous chemical in this section. In addition, classification of health and physical hazards includes determining the degree of the hazard, where appropriate, by comparing the data with the criteria for health and physical hazards.

2. If an employer does not receive an appropriate Safety Data Sheet (SDS) for a hazardous chemical or mixture that he or she received from a manufacturer, importer, or distributer, he or she can contact the manufacturer, importer, or distributor by letter, e-mail, or telephone _____ and request the SDS.

3. _____ *elements* are the specified pictograms, hazard statements, signal words, and precautionary statements for each hazard class and category.

4. _____ is a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Employees such as office workers or bank tellers who encounter hazardous chemicals only in nonroutine, isolated instances are not covered.

5. _____ means to manufacture, process, formulate, blend, extract, generate, emit, or repackage.

6. _____ *party* is someone who can provide additional information about a hazardous chemical and appropriate emergency procedures.

7. _____ *gas* is a chemical in a gaseous state that will ignite spontaneously in air at a temperature of 130°F (54.4°C) or below.

8. _____ *hazard* is a chemical that is classified as possessing one of the following hazards: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid, or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or when in contact with water, emits flammable gas. See Appendix B to §1910.1200—Physical Hazard Criteria.

9. *Work* _____ is a room or designated space in a workplace where hazardous chemicals are produced or used and where employees are present.

10. _____ is a composition that may include a symbol and other graphic elements such as a border, background pattern, or color to convey specific information about the hazards of a chemical. Eight pictograms are designated under this standard for use in a hazard category.

11. _____ means to package, handle, react, emit, extract, or generate as a byproduct or transfer.

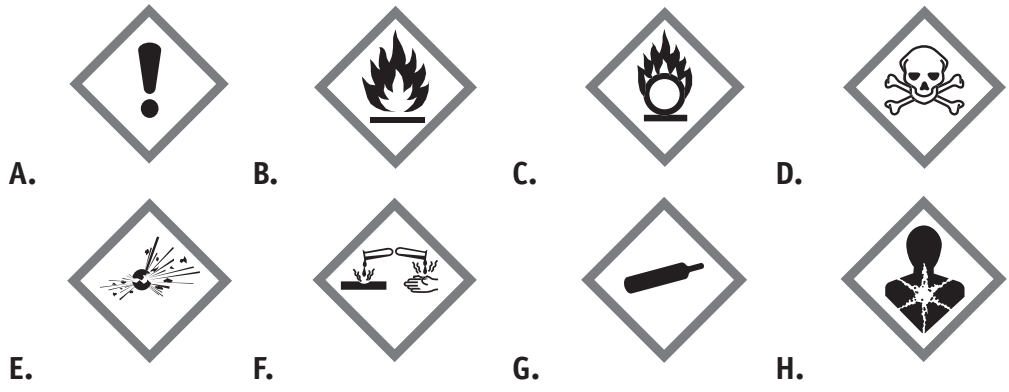
12. *Safety* _____ *sheet* (SDS) includes information concerning a hazardous chemical and is prepared in accordance with 29 CFR 1910.1200(g).

Activity 3.2A HCS Shipped Container Labels: Signal Words, Precautionary Statements, Pictograms

Word Choices: "Danger" "Warning" "Caution" "Toxic"
"Prevention" "Response" "Storage" "Disposal"

HCS Application Questions	*Answer*
1. Which of the potential "signal words" listed above are OSHA HCS "signal words"?	
2. Which "signal word" is used on HCS labels for more severe hazards?	
3. Which "signal word" is used on HCS labels for less severe hazards?	
4. Which words are used to describe four types of precautionary statements on an HCS label?	
5. How many pictograms are mandatory for chemical manufacturers to consider when designing labels for shipped containers of hazardous materials?	

Activity 3.2B Pictogram Learning Activity
Match the Pictogram to the Correct HCS Hazard Type



1. ___ Flammables, Self Reactives, Pyrophorics, Self-heating, Emits Flammable Gas, Organic Peroxides
2. ___ Oxidizers
3. ___ Irritant (skin and eye), Skin Sensitizer, Acute Toxicity (harmful), Narcotic Effects, Respiratory Tract Irritation, Hazardous to Ozone layer
4. ___ Explosives, Self Reactives, Organic Peroxides
5. ___ Corrosives
6. ___ Gases Under Pressure
7. ___ Carcinogen, Respiratory Sensitizer, Reproductive Toxicity, Target Organ Toxicity, Mutagenicity, Aspiration Toxicity
8. ___ Acute Toxicity (fatal or toxic)

Activity 3.3 Developing/Evaluating a GHS Hazard Communication Training Program

Training Topics	*Training Objectives*	*Training Evaluation Methods*	*Cost and Time Considerations*

Activity 3.4 Conducting a Chemical Inventory

Chemical Inventory Method	*Advantages*	*Disadvantages*
1. Walkthrough (individual)	Inventory method consistency	Time consuming
		Facility size-dependent
2.		
3.		
4.		
5.		

Activity 3.5 Organizing Safety Data Sheets and Accessibility

SDS Organization and Accessibility Options	*Advantages*	*Disadvantages*	*Costs*
1. SDSs in notebooks/work areas	May be easy for small businesses	Control/maintenance of SDSs	Low costs (e.g., of notebooks, SDSs, copies, access)
		Work area (number- and location-dependent)	
2.			
3.			
4.			
5.			