Hazard Communication  
2012 Update  
a.k.a.  
Globally Harmonized System (GHS)  

29 CFR 1910.1200  

NC Office of State Human Resources  
Safety and Wellness  
Kathy Conner, State Safety Consultant  
10/2013
Disclaimer

Please Note:

This presentation is designed to meet the new training requirements found in the HAZCOM 2012 update which requires employees to be trained by December 1, 2013.

This presentation does not include all the elements required in an initial employee Hazard Communication Program. Each business unit must update their existing Hazard Communication Program training to include the new elements of the OSHA HAZCOM 2012 Standard.
Course Objectives

This course is designed to help state agencies and universities:

- Be in compliance with HAZCOM2012 training requirements.
- Review the new chemical classifications.
- Review the new labeling requirements.
- Review the new Safety Data Sheets (SDS) format.
- Understand the differences in OSHA Hazard Category Numbers as compared to The National Fire Protection Association (NFPA) and Hazard Materials Identification System (HMIS).

Once you complete this course, you should have a clear understanding of the new safety requirements and changes.
This is a self-paced course. The time it takes you to complete this course is dependent upon the time it takes you to maneuver through the slides. You can work through one section at a time, or you can skip around from one section to the next. The Course Navigation slide will allow you to access each section at the beginning. You do not have to complete the course in one sitting. The system should keep track of the last slide you viewed.

Once you have completed the course, you will be asked to take a test. The test is composed of thirty true/false or multiple choice questions. One set of questions will ask you to use a set of Hess Data Sheets which you will find as part of the curriculum. You are required to achieve a test completion score of 80% or better. You are allowed to take the test more than one time. (Hint: Pay attention to the quiz questions disbursed throughout the course.)
The Hazard Communication 2012 Update is divided into eight sections. They are listed below. You can move from one section to the next by clicking on the section title, or by clicking the navigational button located in the bottom left-hand corner of each slide. The button will bring you back to this slide, where you can select the next section you would like to read. Use your arrow keys to move forward or backward. You can also move forward by left clicking your mouse.

I. **Introduction and Overview**
II. **Laboratory Requirements**
III. **Hazard Classification**
IV. **Health Hazards**
V. **Labeling**
VI. **Pictograms**
VII. **Safety Data Sheets (SDS)**
VIII. **References & Resources**
Introduction and Overview
In 2003, the United Nations (UN) adopted the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). It is designed to replace the various classification and labeling standards used in different countries, by using consistent criteria for classification and labeling on a global level, and for creation of Safety Data Sheets (SDS) previously known as Material Safety Data Sheets (MSDS).

Notice, the word is consistent.

Finally, the data found on MSDS’s will be consistent and there will be no surprises when you compare MSDS’s from different manufacturers.
OSHA Requirement Due Dates

- Train employees on new requirements by December 1, 2013.
- Update Basic Hazard Communication Training programs to include new requirements by December 1, 2013.
- Replace Material Safety Data Sheets (MSDS) with Safety Data Sheets (SDS) by June 1, 2016.
- Update workplace labels by June 1, 2016.

(Continues on next slide)
OSHA Requirement Due Dates

- Labels are to be updated within six months of getting new and significant information about the hazards.

- Provide additional employee training for newly identified physical or health hazards by June 1, 2016.
For Management and Safety Leaders

It is recommended that the written Hazard Communication Program be updated by December 1, 2013.
HAZCOM requires chemical manufacturers or importers to classify the hazards of chemicals they produce or import.

It requires distributors to transmit the required information to employers.

**Example:**
Correction Enterprises has a chemical manufacturing plant and will need to follow all the elements of the updated program. Refer to the OSHA Appendices on the next slide.
These Appendices are used to define the requirements for classification, labeling and Safety Data Sheet creation.

These are a great resource to help you understand the details of each hazard category levels 1 though 4. They can be found on the USDOL website under HCS/HAZCOM2012 Final Rule. (Use the first link on the Updated Websites page in the Reference Section.)

- **Appendix A**, Health Hazard Criteria (Mandatory) – NEW
- **Appendix B**, Physical Hazard Criteria (Mandatory) – NEW
- **Appendix C**, Allocation of Label Elements (Mandatory) – NEW
- **Appendix D**, Safety Data Sheets (Mandatory) – NEW
- **Appendix E**, Definition of “Trade Secret” (Mandatory)
- **Appendix F**, Guidance for Hazard Classifications re: Carcinogenicity (Non-Mandatory) - NEW
The Scope and Application of HAZCOM

- It applies to chemicals known to be present in the workplace

- It applies to employees that may have a potential for exposure:
  - Under normal conditions
  - or
  - A foreseeable emergency
Laboratory Requirements
Laboratory Requirements For Incoming Chemicals

- Labels are not to be removed or defaced.
- Safety Data Sheets (SDS) should be maintained for each chemical.
- SDS should be readily available.
- Information and training should be provided.
Labs that ship chemicals are considered to be a distributor or manufacturer.

They must:

- Label containers prior to shipment; and
- Create SDS and provide them to other distributor(s) or employer(s).

1910.1200(b)(3) (Continues on next slide)
Laboratory Requirements

Labs that create new chemical entities must comply with the new requirements of the OSHA Hazard Communication Standard in regards to SDS creation, signs and labeling.

Laboratories must comply with all Hazard Communication elements for non-lab chemicals being used, e.g. housekeeping, maintenance activities, etc.
Hazard Classification
Hazard Classification

- Each type of hazard covered is considered a **“hazard class”**.
  - Examples are: acute toxicity, carcinogenicity.

- Most hazard classes are also sub-divided into **“hazard categories”** to reflect the degree of severity of the effect.

- This is the concept of **“classification.”** Rather than just determining that there is a hazardous effect (carcinogenicity), there is also a finding of how severe that effect might be: (Category 1 or 2).
Hazard Category

The numerical system of classifying hazards under HAZCOM 2012 is changing drastically.

Each physical and health hazard class may have up to seven (7) hazard description numerical categories, versus the four (4) typically found on the National Fire Protection (NFPA) Label or Hazardous Materials Information System (HMIS) label.

(Continues on next slide)
NFPA and HMIS have the number 4 as being the most severe hazard, whereas GHS labels will define the number 1 to be the most severe hazard.

A comparison is shown in the chart on the next slide.
## HAZCOM 2012 and NFPA/HMIS Comparison

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<tr>
<th>GHS</th>
<th>NFPA</th>
<th>HMIS</th>
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<tbody>
<tr>
<td>1- Severe</td>
<td>4-Severe</td>
<td>4-Severe</td>
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<tr>
<td>2-Serious</td>
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<tr>
<td>3-Moderate</td>
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<tr>
<td>4-Slight</td>
<td>1</td>
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</tr>
</tbody>
</table>
Choose whether the statement is true or false

GHS Hazard Category 1 "Severe Hazard" represents the same hazard as NFPA Category 4.

- True
- False

Click the Quiz button to edit this quiz
This chart shows the new physical hazard classes and their physical hazard categories. The physical hazard categories are assigned to reflect the degree of severity, of the effect. Category 1 is the most hazardous.

Please click in the box to remove.
“Physical hazard” is defined as:

A chemical classified as posing one of the following hazardous effects:

- Explosive
- Flammable (gases, aerosols, liquids or solids)
- Combustibles
- Oxidizer (liquid, solid or gas)
- Self-reactive
Pyrophoric (liquids or solids)
Self-heating
Organic peroxide
Corrosive to metal
Gas under pressure
Cryogenics
Emits flammable gas in contact with water
Explosives

- Explosive chemicals can rapidly release tremendous amounts of destructive energy.

- Explosive chemicals can cause death, serious injury, or severe property damage.
Heat, shock, friction, or even static electricity can initiate explosions of these chemicals.

Explosives are classified in six new categories and are based on damage created.

Examples: Picric acid & Ethylene oxide sterilizers
Flammables are the most common type of hazardous chemical found in the workplace.

They will readily ignite at typical room temps.

They must NOT be disposed of by pouring them down a drain.
Flammables must be stored in a special flammable cabinet.

Flammable gases, aerosols and solids are described by two (2) categories. Flammable liquids are described by four (4) categories.

Examples: isopropyl alcohol, gasoline, diesel fuel
Choose whether the statement is true or false

There is no need to store your waste containers of flammable liquids in a cabinet; they can be stored on the bench floor.

○ True
○ False
Combustibles

- **Combustibles** ignite easily after preheating.

- When flammable & combustible liquids evaporate, the vapors can fuel a fire.

- As flammable and combustible liquids are poured, they create static electricity. The static builds up on the containers, and when the static discharges, the sparks can ignite flammable vapors.

- **Never** pour flammable and combustible liquids into a drain or sewer.

Examples: fuel oil or wood
Oxidizers are a fire hazard, they start and promote fires when mixed with materials that burn.

An oxidizer gas is described by 1 category; liquids and solids are described by 3 categories.

Examples: peroxides, rags and linseed oil
Reactive materials decompose vigorously due to moisture, shock, pressure or temperature.

They are described by 7 categories.

Oxidizers, organic peroxides and explosives are excluded.

Examples:
- sodium, ether, potassium, lithium metals
A small quantity of a pyrophoric will ignite 5 minutes after coming into contact with atmospheric oxygen.

Ignition due to moisture in the air is no longer a part of the definition of pyrophoric.

There is one hazard category for pyrophoric liquids and one for pyrophoric solids.

Examples:
- sodium, phosphorus,
- finely divided metal: aluminum, chromium, zinc
**Self-heating chemicals** are solid or liquid substances or mixtures, other than pyrophoric liquids or solids, which by reaction with air, and without an energy supply, are liable to self-heat.

**Self-heating chemicals** differs from pyrophoric liquids or solids in that they will ignite only when in large amounts (kilograms) and after long periods of time (hours or days).

(Continues on next slide)

[Return to Definitions Slide]
"Self-heating" of a substance or mixture is a process where the gradual reaction of that substance or mixture with oxygen, in air, generates heat. If the rate of heat production exceeds the rate of heat loss, then the temperature of the substance or mixture will rise, which after an induction time, may lead to self-ignition and combustion.

Examples: metal powder, self-heating
Emits Flammable Gas in Contact with Water

- These are solid or liquid chemicals, which by interaction with water, are liable to become spontaneously flammable, or to give off flammable gases in dangerous quantities.

- They are described by 3 categories.

Examples: alkali metals-lithium, sodium metal hydrides-sodium hydride, lithium hydride, calcium carbide
Organic Peroxides

Characteristics:

Over a period of time, these chemicals can form peroxides that may explode when the cap is removed, or when they are concentrated during laboratory activities.

It is important to note on the container:

- The date the chemical arrived in the laboratory,
- When it was opened,
- When it should be tested for peroxide concentration,
- And when it should be discarded.

Examples: common ethers

Organic peroxide means a liquid or solid organic substance which contains the bivalent -0-0- structure and may be considered a derivative of hydrogen peroxide, where one or both of the hydrogen atoms have been replaced by organic radicals. The term also includes organic peroxide formulation (mixtures).

Please click in the box to remove.
Corrosive to Metal

- A chemical, by which chemical action will damage or destroy metals.

- Described by 1 category.

- The major classes of corrosives are mineral acids, bases, dehydrating agents and oxidizing agents, strong acids, strong alkalis, halogens, and oxidizing agents.
Compressed gases in cylinders involve several hazards. High pressure can cause rapid release of gas which could propel the tank like a rocket.

The contained gas may also burn, when released, depending on the type of gas.

Example: oxygen
Cryogenics are extremely cold (-100°C to -270°C).

Upon contact, cryogenic materials can cause living tissue to freeze and become brittle enough to shatter.

Hazards include rapid pressure buildup and asphyxiation.

Cryogenic liquids and gases have many properties and hazardous characteristics in common with compressed gases.

Example: liquid nitrogen
Health Hazards
A health hazard is determined by:

- The amount of exposure;
- The length of time of exposure; and
- The toxicity and corrosiveness.
Select the correct answer from the choices below

All chemicals pose some degree of health hazard. The degree of hazard is directly related to:

- How toxic the chemical is and how much of it you are exposed to.
- When you are exposed to the chemical and the temperature, pressure and part of body contacted.
- The hazard category and class of chemical.
- All of the above.
This chart shows the new health hazard classes and their health hazard categories. The health hazard categories are assigned to reflect the degree of severity, of the effect. Category 1 is the most hazardous.

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<table>
<thead>
<tr>
<th>Health Hazard Class</th>
<th>Health Hazard Category</th>
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<td>Acute Toxicity</td>
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<td>Skin Corrosion/Irritation</td>
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<td>1C</td>
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<td>2</td>
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<td>Serious Eye Damage/ Eye Irritation</td>
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<td></td>
<td>2A</td>
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<td>2B</td>
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<td>Respiratory Sensitization</td>
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<td>Germ Cell Mutagenicity</td>
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<td>Carcinogenicity</td>
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<td>Reproductive Toxicity</td>
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<td>Lactation</td>
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<td>STOT – Single Exposure</td>
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<td>STOT – Repeated Exposure</td>
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<tr>
<td>Aspiration</td>
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<tr>
<td>Simple Asphyxiants</td>
<td>Single Category</td>
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</tbody>
</table>
A health hazard can be caused by a chemical which 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)
- Aspiration hazard
Acute Toxicity may be fatal or cause damage to target organs as a result of a single exposure or exposure of short duration.

They are described by 4 categories.

Acute toxicity is harmful.

Examples: carbon monoxide, ammonia, chlorine, lawn & garden products.
Select the correct answer from the choices below

Looking at the following pictograms, which chemicals are the most hazardous when exposed to the skin?


Click the ✅ Quiz button to edit this quiz
Chronic Toxicity

- **Chronic Toxicity** means there is repeated low exposures or doses to toxic agents over long periods of time.

- Symptoms develop slowly over a long period of time and then become persistent, or recur frequently.

Examples: mercury, lead, naptha, carcinogens
Corrosives:
- Can destroy skin and other materials on contact.
- Cause irreversible damage to the skin, lining of the respiratory tract and the eyes.

Damage depends on the type and concentration of corrosive material, length of the exposure, the body part contacted, and first aid measures taken.

Examples: sulfuric acid, sodium hydroxide, peroxides.
Choose whether the statement is true or false

The biggest hazard with corrosive materials is that they can burn your skin and eyes on contact. Corrosives can literally eat through things like the paint on your car or your clothes.

- True
- False

Click the Quiz button to edit this quiz
Serious Eye Damage or Eye Irritation

- **Serious eye** damage means the production of tissue damage in the eye, or serious physical decay of vision.

- **Eye irritation** means changes in the eye following the application of a substance to the front surface of the eye, which are fully reversible.

- First aid includes immediate irrigation with water for at least 15 minutes.
Irritants are non-corrosive materials that cause reversible inflammatory effects based on concentration of chemicals or duration of exposure.

Example: Diluted Bleach
**Sensitizers** are materials that on first exposure cause little or no reaction, but upon repeated exposure may cause an allergic reaction not necessarily limited to the contact site.

Examples: formalin, latex gloves, antibiotics, plant pollen, bee stings
A germ cell mutagen is a chemical that may cause permanent changes in the amount or structure of the genetic material in the sperm or ovum of humans that can be transmitted to the progeny.

- **Category 1** germ cell mutagens are those chemicals that are either known to induce or that should be regarded as if they induce heritable mutations.

- **Category 2** germ cell mutagens are those that may induce heritable mutations.
Carcinogens are cancer causing agents.

- **Category 1**: Known or presumed human carcinogens
- **Category 2**: Suspected human carcinogen

Examples: formaldehyde, formalin, benzene
Reproductive toxicity includes adverse effects of chemicals on sexual function and fertility in adult males and females, as well as developmental toxicity in offspring.

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

Materials which cause concern for the health of breastfed children have a separate category: Effects On or Via Lactation.
Select the correct answer from the choices below

Which of the following hazards can affect your ability to conceive a child?

- a. Reproductive Hazard
- b. Mutagen
- c. Corrosives
- d. Both a and b
- e. Both a and c

Click the Quiz button to edit this quiz
Aspiration hazard 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.

Example: chlorinated hydrocarbons Aspiration toxicity includes severe acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death following aspiration. Some hydrocarbons (petroleum distillates) and certain chlorinated hydrocarbons have been shown to pose an aspiration hazard in humans. Primary alcohols, and ketones have been shown to pose an aspiration hazard only in animal studies.

Please click in the box to remove.
Specific Target Organ Toxicity

- All significant health effects, not otherwise specifically included in the GHS, that can impair function, both reversible and irreversible, immediate and/or delayed are included in the non-lethal target organ/systemic toxicity class.

- Single Exposure or Repeated Category 1 is significant toxicity to humans.

- Single Exposure or Repeated Category 2 is presumed to be harmful to human health.

- Single Exposure Category 3 has “narcotic effects.” Respiratory tract irritation is considered to be “organ systemic effects,” following a single exposure.
Definitions

A simple asphyxiant is a substance or mixture that displaces oxygen in the ambient atmosphere, and can cause oxygen deprivation in those who are exposed, leading to unconsciousness and death.

Example:

“Hazard Not Otherwise Classified (HNOC)” is an adverse physical or health effect identified through evaluation of scientific evidence during the classification process, that does not meet the specified criteria for the physical and health hazard classes addressed in this section (standard).

The effect either:

- Falls below the cut-off value/concentration limit of this hazard class,
  or
- Is under a GHS hazard category not adopted by OSHA (e.g., acute toxicity Category 5).
Quiz

Select the correct answer from the choices below

What is the difference between a chronic exposure and an acute exposure?

- A chronic health hazard happens fast and an acute hazard happens slowly.
- A chronic health hazard is caused by a single exposure and an acute exposure occurs over a long period of time.
- A chronic health hazard is caused by repeated low exposures or doses over long periods of time. An acute exposure is usually a high concentration in a short period of time.

Click the ✔️ Quiz button to edit this quiz
Labeling
Labeling

Labels are to be written in English and prominently display the following:

- Product identifier
- Pictogram
- Signal word
- Hazard statements
- Precautionary statement(s)
- Name, address and telephone number of manufacturer/importer/responsible party

The label on this bottle is not in compliance.
Labeling

1910.1200(f)

Employers may add information for foreign language employees.

Examples:
Labeling exemption:

Portable containers, intended for “immediate use” by the employee who performs the transfer of hazardous chemicals from labeled containers, are exempt from the labeling requirements.

“Immediate use” means:

- Under the control of, and
- Used only by the transferring employee, and
- Within the work shift of transfer
New style Label (GHS)

XYZ... Chemical

Warning
Flammable liquid and vapor
Harmful if swallowed
May cause damage to organs (liver)
May cause damage to organs through prolonged or repeated exposure (heart)
Suspected of damaging fertility

Keep away from heat, sparks, open flames and hot surfaces. No smoking. Do not breathe vapors. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves and eye protection. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Keep container tightly closed. Ground container and receiving equipment. Use explosion-proof electrical, ventilating, lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Store locked up in a well-ventilated place. Keep cool. Dispose of contents and container in accordance with local, state and federal regulations.

First aid:
If swallowed: Call a doctor if you feel unwell. Rinse mouth.
If on skin or hair: Remove immediately all contaminated clothing. Rinse skin with water.
If exposed or if you feel unwell: Call a doctor.

Fire:
In case of fire: Use water spray, foam, dry chemical or carbon dioxide (CO₂) for extinction.

GHS Company, 123 Global Drive, Cincinnati, OH
Telephone (800) 555-8888
Quiz

Select the correct answer from the choices below

What are the hazards associated with this chemical?

- Acute toxicity severe, oxidizer, target organ
- Acute toxicity harmful, health hazard, flammable
Pictograms
O Red borders are required.

O There should be no blank pictograms.
Pictogram Used with Health Hazard

Used to show:

- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity
The Exclamation Point Pictogram Is Used for:

Used to show:

- Irritant
- Dermal Sensitizer
- Acute toxicity (harmful)
- Narcotic Effects
- Respiratory Tract
- Irritation
Select the correct answer from the choices below

Which hazard characteristic is **NOT** associated with the exclamation mark?

- Irritant
- Dermal Sensitizer
- Acute Toxicity (Harmful)
- Narcotic Effects
- Respiratory Tract
- Corrosive

Click the ✔ Quiz button to edit this quiz
The Pictogram Is Used for Acute Toxicity (Fatal or Toxic)

- DANGER-Signal Word
Select the correct answer from the choices below

What is the signal word for the skull and crossbones pictogram?

- Health Hazard
- Danger
- Fatal
- Warning

Click the ☑ Quiz button to edit this quiz
The Pictogram Used for Corrosives

Used to show:

- Skin corrosion/burns
- Corrosive to eyes
- Corrosive to metals
The Pictogram for Explosives

Used for:

- All Explosives, and
- Organic Peroxides
The Pictogram for Flammables

Used for:

- All Flammables
- Self-Reactive
- Pyrophoric
- Self-Heating
- Emits Flammable Gas
- Organic Peroxides
The Pictogram for Oxidizers

Flame over Circle
The Pictogram for Compressed Gas
The Pictogram for Environment (Aquatic Toxicity)
Signal word - a word used to indicate the relative level of the severity of a hazard and alert the reader to a potential hazard on the label.

“Danger” is used for the more severe hazards.

“Warning” is used for the less severe.

Note: “Caution” will no longer be used.
Hazard Statements

- Give the nature of the hazard(s) of a chemical.

- Give the Hazard Category.

Examples:

**Pictograms**

- Danger
- Danger
- Warning

**Signal words**

- Fatal if inhaled
- Toxic if inhaled
- Harmful if inhaled
Precautionary Statements

They are recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.

You should: Wear face protection [for Explosives, Division 1.1]

<table>
<thead>
<tr>
<th>Pictograms</th>
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<tr>
<td>[Explosive pictogram]</td>
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<tr>
<th>Signal words</th>
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<td>Danger</td>
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<thead>
<tr>
<th>Hazard statement</th>
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<tr>
<td>Explosive; mass explosion hazard</td>
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<td>Explosive; severe projection hazard</td>
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<td>Explosive; fire, blast or projection hazard</td>
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<td>Fire or projection hazard</td>
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Warning
Quiz

Match the items on the left with the items on the right

- Oxidizer
- Corrosive
- Health Hazard
- Flammable

Click the Quiz button to edit this quiz
Safety Data Sheets (SDS)
Safety Data Sheets

1910.1200(g)

- Material Safety Data Sheets will be called Safety Data Sheets.

- Until 06/01/2016 both MSDS and SDS can be used in the workplace.

- After 06/01/2016 you must remove any chemical from workplace if a SDS is unavailable from the manufacturer, or you can create a SDS and new label.

- Employers shall have an SDS in the workplace for each chemical they use.

- SDS must be written in English.
Safety Data Sheets (SDS) will be formatted into the following sixteen (16) sections.

1. Identification of the substance or mixture and of the supplier
2. Hazards identification
3. Composition/information on ingredients
4. First-aid measures
5. Fire-fighting measures
6. Accidental release measures
7. Handling and storage
8. Exposure controls/personal protection
9. Physical and chemical properties
10. Stability and reactivity
11. Toxicological information
12. Ecological information (non-mandatory)
13. Disposal considerations (non-mandatory)
14. Transport information (non-mandatory)
15. Regulatory information (non-mandatory)
16. Other information, including date of preparation or last revision

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Resource: OSHA.gov
Safety Data Sheets

Safety data sheets are to be readily accessible during each work shift to employees when they are in their work area(s).

Electronic access and other alternatives to maintaining paper copies of the SDS are permitted as long as there are no barriers to immediate employee access.

Where employees must travel to more than one geographical location to carry out their work, the SDS may be kept at the primary workplace facility as long as employees can immediately obtain the required information in an emergency.
Select the correct answer from the choices below

According to the new GHS, which of the following items are required on the new chemical label?

- a. Name and address of manufacturer, hazard pictogram
- b. Signal word such as "Danger" or "Warning" hazard pictogram
- c. Precautionary statements, product identifier
- d. a and b
- e. b and c
- f. All of the above
Access to Employee Exposure and Medical Records

(1910.1020)

Please note:

- 1910.1020 defines an “employee exposure record” to include the SDS.*

- In the absence of an SDS, a chemical inventory can be used.

- The record must be held and maintained at least 30 years.

- Employees must have access to the records.

* The 3/26/2012 final rule did not include a revision to 1910.1020
References & Resources
Updated Websites

Note: The web page will open in your browser. After viewing the web page, you can return to this slide by reducing or closing the web page.

GHS Webpage:
http://www.osha.gov/dsg/hazcom/index.html

Hazard Communication Webpage:
http://www.osha.gov/dsg/hazcom/index2.html

NCLABOR Webpage:
http://www.nclabor.com/osa/etta/A_to_Z_Topics/a_to_z_toc.htm
Quick Reference Chart

Read and Understand the Rule; Assign Responsibilities for Tasks

Establish Procedures to Update When Necessary; Evaluate Effectiveness; Use Information to Select and Maintain Needed Protective Measures

Inform and Train Employees About the HCS, Workplace Hazards, and Protective Measures

Effective Hazard Communication Program

Prepare and Implement a Written Hazard Communication Program with Chemical List

Maintain Safety Data Sheets for All Hazardous Chemicals and Make Accessible to Employees

Ensure All Containers are Labeled

Resource: osha.gov
The End