



Colston Safety and Training, Inc.  
**Haz-Woper 40-Hour Training**

**Prerequisites:** This course has no prerequisite.

**Course Length:** 40 Hours – Course length will vary dependent on student count Total course length does not include breaks.

**Class Size:** The maximum number of students per instructor is twenty (20).

**COMPLIANCE REQUIREMENTS:**

- OSHA 29 CFR 1910.120 requires training depending on the workers job classification hazardous substances presence at job site.
- There are several HAZWOPER training requirements for employees who work around hazardous substances. We offer all HAZWOPER required training courses which fully comply with requirements set forth in OSHA 29 CFR 1910.120. They are as follows:
  - Emergency Response Workers:
    - Level 1 Awareness – Emergency Notification and HAZCOM 8 Hrs. (Day 1)
    - Level 2 Operations – Defensive Measures 16 Hrs. (Day 1-Day 2)
    - Level 3 Technician – Offensive Measures 24 Hrs. (Day 1-Day 3)
    - Level 4 Technician – Specific Hazards 40 Hrs. (Day 1-Day 5)
  - Annual Refresher 8 Hrs. (Day 1)

**Course Objective:**

- Regulation Review
  - NFPA 472.6.2.2
  - OSHA 29 CFR 1910.120, 1910.1200, 1910.1000
- Basic Principals
  - Chemical properties
  - Hazards
  - Risks
- General Terms and Definitions
  - Element
  - Compound
  - Mixture
  - Solution
  - Slurry
  - Cryogenic liquid
  - Ionic Bonding

- Covalent Bonding
- Organic Materials
- Inorganic Materials
- Hydrocarbons
- Saturated Hydrocarbons
- Unsaturated Hydrocarbons
- Aromatic Hydrocarbons
- Halogenated Hydrocarbons
- Physical Properties
  - Normal Physical State
  - Temperature of product
  - Specific Gravity
  - Vapor Density
  - Boiling Point
  - Melting Point
  - Sublimation
  - Critical Temperature
  - Critical Pressure
  - Volatility
  - Evaporation Rate
  - Expansion Ratio
  - Vapor Pressure
  - Solubility
  - Miscibility
  - Degree of solubility
  - Viscosity
- Chemical Properties
- Flammability Hazards
  - Flash Point
  - Fire Point
  - Ignition Temperature
  - Auto ignition Temperature
  - Flammable range
  - Explosive Range
  - Toxic products of Combustion
- Reactivity Hazards
- Corrosivity Hazards
- Radioactivity Hazards

- Sources of Hazard Data
  - Reference Books
  - Guide Books
  - Technical Information Centers
  - Web Sites
  - Computer Databases
  - Technical Information Specialists
  - Material Safety Data Sheets
  - Labels
  - Laws (Regulations)
- Monitoring Instruments
  - Direct Reading
  - Corrosive Reading
  - Radiation Survey
  - Oxygen
  - Combustible Gas (LEL)
  - Colorimetric Indicators
  - Toxic Gas sensors
  - Ionization Detectors
  - Photo-ionization Detectors (PID)
  - Flame Ionization Detectors (FID)
  - Multi Gas Monitors
  - Test Strips
  - Test Paper
- Sampling Methods, Procedures & Strategies
- Managing Information
- General Hazardous Material Behavior Model
- Container Stress Events
- Container Breach Events
- Release Event
- Engulfing Event
- Incident action Plan
- Risk Evaluation

**Course Outline Topics:**

Day 1 - Hazwoper Laws

The Levels of Training

29 CFR 1910.1200 Hazard Communication Standards

Hazardous Substance

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- Material Safety Data Sheets
- Control Methods
- Personal Protective Equipment
- Hearing Conservation
- Emergency Procedure

Day 2 - Toxicology

- Hazard Recognition
- Health Effects
- Safety and Health Plan
- Communications
- Sampling Techniques and Air Monitoring
- Safe Material Handling Techniques

Day 3 -

Confined Space Entry

- Introduction
- Permit
- Pre-Entry
- Pre-Entry Checklist
- Lockout-Tagout
- Confined space Entry
- Personal Protective Equipment
- Fall Protection
- Respirator Maintenance program and Inspection Procedures
- Cleaning, Repair and Storage of Respirators

Emergency Rescue

- Decontamination
- Hydrogen Sulfide (H<sub>2</sub>S)
  - Introduction
  - Characteristics
  - Effects on Individuals
  - Concentration Levels
  - Detection
  - Precautions
  - Emergency Rescue and First Aid
  - Respiratory Protection Policy
  - Respiratory Hazards
  - Respiratory Emergencies
  - Personal Protective Equipment

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Day 4 - HM 126/181 Handling and Shipping of Hazardous Materials

General

Hazardous Materials

Packaging and Marking

Labels

Documentation

Placards

Loading and Storage

Regulations

Levels of Personal Protective Equipment

Day 5 - Super Fund Community Relations

Field Exercises

Practical Use of Personal Protective Equipment

On-Site Demonstration

Review for Final Examination

Final Test and Critique

*This matrix is to be considered as an example. The order of topics may change to accommodate class experience or instructor availability. Additional topics may be added or customized to meet client or facility hazards.*

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