Hazard Communication and the Tennessee Right-to-Know Law

29 CFR 1910.1200
29 CFR 1926.59
TDL Rule 0800-1-9
“Various and manifold is the harvest of diseases reaped by certain workers from the crafts and trades that they pursue; all the profit that they get is fatal injury to their health.”
Basic Nature of Chemicals

- Everything is (a) chemical
- Every chemical can be “hazardous”
- “Hazardous” means there is scientific evidence that the chemical causes harmful effects during normal use
- Harmful effects range from irritation to cancer
Paracelsus, 1493-1541

“All substances are poisons, there is none which is not a poison. The right dose differentiates the poison from the remedy.”
Hazardous Chemicals

- Hazardous chemicals are of great value
- Most can be used safely
- OSHA does not ban chemicals
Basic Principle of Chemical Safety

- What you don’t **breathe** won’t hurt you

- What you don’t **contact** won’t hurt you
What Hazardous Chemicals Do You Use?
Examples of Hazardous Chemicals

- Solvents--xylene, toluene, acetone
- Corrosives--acids (HCl), bases (KOH)
- Dusts--wood, metal
- Mists--acid
- Fumes--welding
- Compressed gases--oxygen, acetylene, argon
- Flammables--gasoline
Why a hazard communication standard?

- Employees have a **need** to know the hazards and identities of chemicals they are exposed to while working.
- Employees have a **right** to know the hazards and identities of chemicals they are exposed to while working.
- Employees **need** to know how to protect themselves from adverse effects of chemicals.
1910.1200 and 1926.59

- Assessing the hazards of chemicals
- Providing information to employees
- Performance oriented standard
- Not a "one-shot deal"

Scope--All chemicals known to be present in the workplace such that employees can be exposed under normal conditions of use or in a foreseeable emergency
Exemptions

- Articles
- Food
- Pills
- Cosmetics
- Consumer products used just like a consumer uses
- Nuisance particles
- Radiation
- Biological hazards
Hazard Communication
1910.1200

- Chemical list
- Written program
- Labels
- Material safety data sheets
- Training
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<th>Rank</th>
<th>#Cited</th>
<th>Standard</th>
<th>Hazard Description</th>
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<tr>
<td>1</td>
<td>139</td>
<td>1910.1200 (e)(1)</td>
<td>No Written Hazard Communication Program</td>
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<td>115</td>
<td>1910.215 (b)(9)</td>
<td>Missing Tongue Guard on Grinder</td>
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<td>90</td>
<td>1910.157 (e)(2)</td>
<td>No Visual Monthly Inspection of Fire Extinguishers</td>
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<td>Inadequate Training on Hazardous Chemicals</td>
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<td>1910.305 (b)(2)</td>
<td>No Covers on Pull Boxes, Junction Boxes and Fittings</td>
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<td>1910.151 (c)</td>
<td>No Emergency Eye Wash and/or Shower</td>
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<td>Missing Work Rest on Grinders</td>
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<td>Portable Fire Extinguishers Not Accessible</td>
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<td>1910.1200 (f)(5)(i)</td>
<td>No Chemical Identity on Hazardous Chemical Label</td>
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<td>No Sign Indicating Approved Load Levels</td>
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<td>1910.134 (e)(1)</td>
<td>No Medical Evaluation for Respirator Wearers</td>
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<td>1910.1200 (g)(1)</td>
<td>No MSDS for Hazardous Chemicals</td>
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<td>1910.304 (f)(4)</td>
<td>No Permanent or Continuous Electrical Path to Ground</td>
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<td>1910.22 (a)(1)</td>
<td>Poor Housekeeping</td>
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<td>1910.1200 (f)(5)(ii)</td>
<td>No Hazard Warning Label on Container of Hazardous Chemicals</td>
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<td>54</td>
<td>1910.23 (c)(1)</td>
<td>No fall protection for open-sided floor above 4'</td>
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Hazardous Chemical List

- Inventory of materials for which MSDS is needed
- Containerized and non-containerized
  - welding fumes, dusts, exhaust fumes, etc.
- If it’s not hazardous, it’s not covered
- If there’s no potential for exposure, it’s not covered
Written Program

- How your haz com program will be implemented in the facility
- An assurance that all aspects have been addressed
- Not a paper exercise -- all elements must be implemented
- Laboratories (see 1910.1450) and warehouses are exempt from written program requirement
- Not lengthy or complicated
- Must be site-specific
Written Program Requirements

- Hazardous chemical inventory list
- Labeling policy
- Material Safety Data Sheet policy
- Training methods and procedures
- Non-routine tasks training methods
- Multi-employer activity
Labels

- Each container of hazardous chemicals must be labeled with:
  - Identity
  - Hazard warning

- Label must cross-reference with the MSDS and chemical inventory entry
Labels

- Portable containers
  - Identity and hazard warning must be transferred unless the portable container is:
    - Under the control at all times of the employee making the transfer from the labeled container and
    - Contents used up in one shift
Labels

• Appropriate hazard warnings?

  • Do Not Breathe
  • Avoid Contact
  • Do Not Use Near Open Flame

  • Damages the Liver
  • Causes Skin Irritation
  • Flammable
Labels

- Must be in ENGLISH
- Includes solid metal, solid wood, or plastic items not exempted as articles because of downstream use
WARNING
CARBON MONOXIDE
MAY BE PRESENT
- May cause dizziness, nausea or a headache
- Excessive exposure may cause unconsciousness and death
- May aggravate heart and artery diseases
Alternative Labeling

- Permitted when employer's overall program proven effective
- Must ensure employees fully aware of hazards/use and understanding of labeling system
- Employer bears burden of establishing that employee awareness equals or exceeds conventional labeling system
Material Safety Data Sheets

- Designate someone to be responsible
- Obtain one for each hazardous chemical
- Exemptions--no MSDS is required for:
  - Drugs in solid, final form for direct administration to patients (pills, tablets)
  - Consumer products where the employer can show:
    - It is used in the workplace for the purpose intended
    - Duration and frequency of use is not different from that of the consumer
- Must be readily available to employees while they are in their work areas
Electronic Maintenance of MSDS?

- Acceptable, if
  - Reliable devices are readily accessible
  - Workers are trained in the use of the devices
  - There is an adequate back-up system
  - The system is part of the overall haz com program
Hazard Communication Training

• Before employees are exposed
• Annually thereafter, per Tennessee Right to Know Law
• Training must be “effective,” i.e., employees must be able to recall basic information
Hazard Communication
7 Basic Questions

• What are the requirements of the hazard communication standard?
• What hazardous chemicals are you exposed to (or may be exposed to in an emergency)?
• Where are these chemicals present?
• What are the short and long term effects?
• How can you detect if you are overexposed?
• How can you protect yourself?
• Where are the MSDS and written program?
Tennessee Right-To-Know Law
Tennessee Right-to-Know Law

- Employee also includes volunteer firefighters
- MSDS must be made accessible to students in laboratories
- Must train even if employees are illiterate
- Measure effectiveness by verbal recall
- Evaluate training through employee interviews
Tennessee RTK-Training

- Must provide **annual** training
- Must maintain **records** of training
  - Identification of those trained
  - Date of the training
  - Brief description (e.g., symptoms of CO poisoning, H$_2$SO$_4$ emergency procedures, etc.)
Tennessee RTK-Recordkeeping

- Maintain training records for period of employment + 5 years
  - Identity of the employee trained
  - Date(s) of training
  - Brief description of the training
- Maintain MSDS for as long as the chemical is used or stored
- Maintain chemical list for 30 years
Resources

- [www.cdc.gov](http://www.cdc.gov)
- [www.cdc.gov/niosh](http://www.cdc.gov/niosh)
- Memphis Office 901-543-7259
- Jackson Office 731-423-5641
- Nashville Office 615-741-2793
- 1-800-249-8510
- Knoxville Office 865-594-6180
- Kingsport Office 423-224-2042
- Chattanooga 423-634-6424
- Consultative Services 1-800-325-9901
Quiz Time

To complete the Hazard Communication Training Module, please [click here](#) for the quiz.