Rutherford County Government

Hazard Communication (Hazcom) Training

"Right-to-Know" Program

Course Outline

Under this program, the objective is to…..

- Know how to recognize potential chemical hazards at your workplace
- Reduce the risks involved in working with hazardous materials
- Know how to read a Material Safety Data Sheet (MSDS)
- Know what measures to take for protection from chemicals

<u>Assessment</u>

- *5 question quiz*

Introduction

- About 32 million employees work with and are potentially exposed to one or more chemical hazards
- Approximately 650,000 chemical products exist
- Hundreds of new ones are being introduced annually
- Some chemicals may pose safety hazards and have the potential to cause fires, explosions and other serious accidents

How does this apply to You…

- OSHA recommends that <u>everyone</u> know how to find the proper information to protect themselves

- If in an office setting or otherwise, you might think Hazard Communication would not apply to you…however, you could always find yourself in a situation and not realize it…

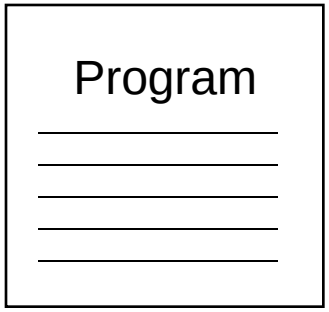
- <u>For Example</u>: If you were using a cleaning agent for your desk or office you need to know how to read the label prior to using the cleaning agent. Or on the other hand, recognize not to use something that could be mixed improperly or does not have a label on it.

- And, in case of an exposure or accident, you need to know how to react in an emergency situation

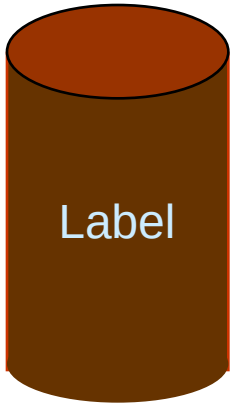
OSHA's Hazard Communication Standard

To ensure that employers and employees know about work hazards and how to protect themselves so that the incidence of illnesses and injuries due to hazardous chemicals is reduced.

Hazard Communication Program



Container Labeling



Material Safety Data Sheet

Definitions

- **Hazard**- An exposure associated with an unacceptable risk for illness or disease
- **Material**- A chemical or mixture of chemicals, including raw materials, process additives, products, by-products, waste materials, maintenance related materials, and laboratory chemicals
- **Material Safety Data Sheets (MSDS)**- A document addressing the Risk Management aspects of a material.

Department Responsibilities

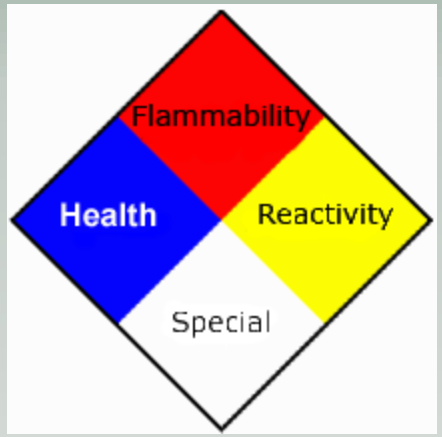
- List hazardous chemicals within your location
- Obtain MSDS Sheets and labels for each hazardous chemical…provided by the manufacturer, importer or distributor
- Communicate hazard information to employees and new hires in your departments through labels, MSDS sheets and formal training

So How Can Hazards Be Reduced?

- The *first* step is to perform a thorough hazard assessment or materials inventory list
  - Making a list of all the hazardous chemicals within your department
- We as the Employer can rely on the evaluations performed by manufacturers or importers to establish the hazards of the chemicals they produce
  - This information can be found from MSDS sheets and labels

How Must Chemicals Be Labeled?

Each department shall *verify* that all containers of hazardous chemicals entering the workplace or received for use will include the following information from the manufacturer:



- Clearly labeled as to the contents of the chemical
- Notes appropriate hazard warnings
- Lists the name and address of the responsible party

Container Labeling

The Hazard Warning can be any of the following that provides information on the hazards of the chemicals and the targeted organs affected, if applicable:

- Any type of message
- Picture
- Symbol

What is a Material Safety Data Sheet (MSDS)?

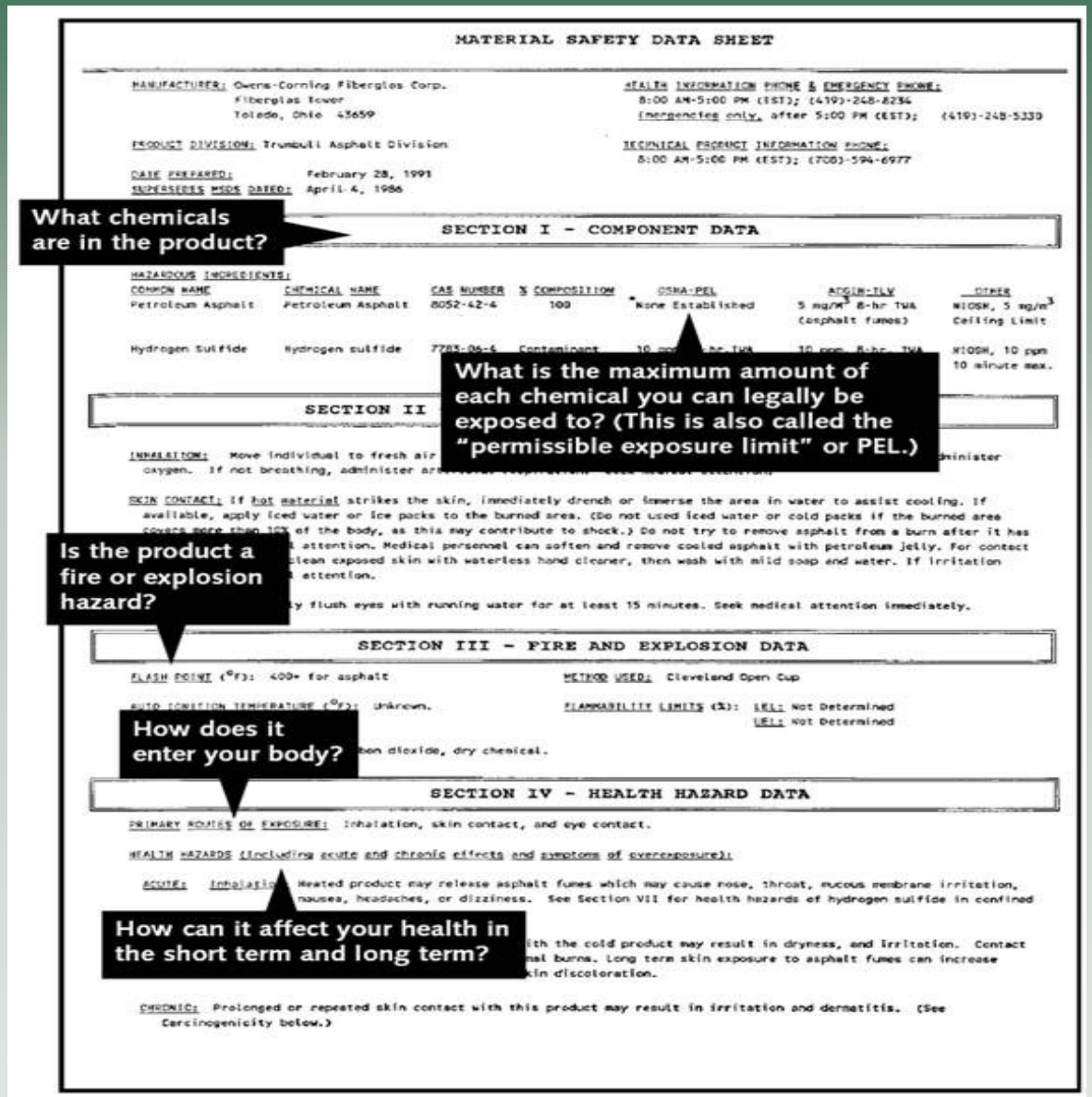
Documentation (Your Right To Know) prepared & given by the chemical manufacturer or importer that describes the following:

- What chemicals are in the product.
- Maximum time you can legally be exposed to the chemical.
- Is the product a fire or explosion hazard?
- How it enters/harms your body?
- How it affects your Health - Short and Long Term.
- What Personal Protection Equipment needs to be used.
- How do you handle the product safely?
- Hazards when product is combined with other chemicals?
- In the event of a spill or release, what should be done.

Important MSDS Details

- Must be convenient & readily accessible to all employees during their work shift and in each work area
- MSDS sheets have no prescribed format
- Must be in English and include information regarding the specific chemical identity and common names
- If not on containers, you must call the manufacturers to get the full description of the chemicals with which you are working
- Do Not use the chemical until you know what you are working with first!

Sample MSDS



MATERIAL SAFETY DATA SHEET

MANUFACTURER: Owens-Corning Fiberglas Corp.
Fiberglas Tower
Toledo, Ohio 43659

HEALTH INFORMATION PHONE & EMERGENCY PHONE:
8:00 AM-5:00 PM (EST); (419)-248-8234
Emergencies only, after 5:00 PM (EST); (419)-248-5330

PRODUCT DIVISION: Trumbull Asphalt Division

TECHNICAL PRODUCT INFORMATION PHONE:
8:00 AM-5:00 PM (EST); (708)-594-6977

DATE PREPARED: February 28, 1991
SUPERSEDES MSDS DATED: April 4, 1986

What chemicals are in the product?

SECTION I - COMPONENT DATA

HAZARDOUS INGREDIENTS:

COMMON NAME	CHEMICAL NAME	CAS NUMBER	% COMPOSITION	OSHA-PEL	ACGIH-TLV	OTHER
Petroleum Asphalt	Petroleum Asphalt	8052-42-4	100	None Established	5 mg/M^3 8-hr TWA (asphalt fumes)	NIOSH, 5 mg/m^3 Ceiling Limit
Hydrogen Sulfide	Hydrogen sulfide	7783-06-4	Contaminant	10 ppm 8-hr TWA	10 ppm 8-hr TWA	NIOSH, 10 ppm 10 minute max.

What is the maximum amount of each chemical you can legally be exposed to? (This is also called the "permissible exposure limit" or PEL.)

SECTION II

INHALATION: Move individual to fresh air ... dminister oxygen. If not breathing, administer ar...

SKIN CONTACT: If hot material strikes the skin, immediately drench or immerse the area in water to assist cooling. If available, apply iced water or ice packs to the burned area. (Do not used iced water or cold packs if the burned area covers more than 10% of the body, as this may contribute to shock.) Do not try to remove asphalt from a burn after it has ... attention. Medical personnel can soften and remove cooled asphalt with petroleum jelly. For contact ... clean exposed skin with waterless hand cleaner, then wash with mild soap and water. If irritation ... attention.

... ly flush eyes with running water for at least 15 minutes. Seek medical attention immediately.

Is the product a fire or explosion hazard?

SECTION III - FIRE AND EXPLOSION DATA

FLASH POINT (°F): 400+ for asphalt

METHOD USED: Cleveland Open Cup

AUTO IGNITION TEMPERATURE (°F): Unknown.

FLAMMABILITY LIMITS (%): LEL: Not Determined
UEL: Not Determined

How does it enter your body?

... bon dioxide, dry chemical.

SECTION IV - HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE: Inhalation, skin contact, and eye contact.

HEALTH HAZARDS (Including acute and chronic effects and symptoms of overexposure):

ACUTE: Inhalation: Heated product may release asphalt fumes which may cause nose, throat, mucous membrane irritation, nausea, headaches, or dizziness. See Section VII for health hazards of hydrogen sulfide in confined

How can it affect your health in the short term and long term?

... ith the cold product may result in dryness, and irritation. Contact ... nal burns. Long term skin exposure to asphalt fumes can increase ... kin discoloration.

CHRONIC: Prolonged or repeated skin contact with this product may result in irritation and dermatitis. (See Carcinogenicity below.)

Sample MSDS-Continued

What protection must the employer provide when workers use the product?

How do you handle the product safely?

Is there a danger when the product combines with other chemicals?

In the case of an accidental spill or release, what should be done?

SECTION V - EMPLOYEE PROTECTION

VENTILATION: Outdoor use - ensure adequate ventilation and avoid fumes by working upwind. Indoor use - ensure adequate building ventilation and local exhaust. (See Respiratory Protection below and Section VII on dangers of hydrogen sulfide.)

RESPIRATORY PROTECTION: If irritation occurs or if the TLV for asphalt fumes is exceeded, use a NIOSH/MSHA approved air st, mists and fumes. In situations where the concentration of H_2S exceeds the PEL or TLV, supplie tained breathing apparatus are required. Always use respiratory protection in accordance with you ction program and OSHA regulations under 29 CFR 1910.134.

l safety goggles or a face shield when material is in liquid form.

PROTECTIVE HING: Wear long sleeved shirt and long pants. Leather or lined neoprene coated gloves should be used when there could be ct contact. Sunscreens may decrease the potential for skin discoloration with chronic exposure.

WORK/HYGIENIC PRACTICES: Kettles should be operated at the lowest possible temperature that allows proper application. Kettle should have tight-fitting lids and be used in well ventilated areas. Handle in accordance with good industrial hygiene and safety practices. These include avoiding any unnecessary exposure and removal of the material from the skin, eyes, and clothing. Wash hands and arms frequently. Shower after exposure. Wash work clothes when soiled. Safety showers and eye wash stations should be available.

SECTION VI - REACTIVITY DATA

STABILITY (Conditions to Avoid): Product is stable. However, upon heating, hydrogen sulfide gas (H_2S) may be generated. (See Section VII of this MSDS for more information on H_2S.)

INCOMPATIBIL (Materials to Avoid): Do not allow hot, molten asphalt to contact water as this may cause violent eruptions and ... of hot asphalt. Avoid contact with strong oxidizers.

DUCTS: Carbon monoxide, carbon dioxide, sulfur oxides, hydrogen sulfide, and various hydrocarbon hydrogen sulfide gas may be released. (See Section VII.)

will not occur.

SECTION VII - STORAGE PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Ensure adequate ventilation. (See Section V above.)

SECTION VIII - PHYSICAL DATA

MELTING POINT (°F): Not Applicable

BOILING POINT (°F): 700

SECTION IX - ENVIRONMENTAL PROTECTION

ACTION TO TAKE FOR SPILLS (Use Appropriate Safety Equipment): Dike storage tanks to prevent material from entering sewers or waterways. Absorb with inert materials such as sand or vermiculite. Dispose as a solid regulated waste.

WASTE DISPOSAL M D: Dispose in accordance with federal, state and local regulations as a solid waste. The primary method of ... ration.

You Should KNOW….

1. Where the County keeps its written Hazard Communication Program - (Risk Management Dept.)
2. What chemicals you work with in your Department (given by department)
3. Where the MSDS sheets are located in your department
4. Every container must have a label
5. What chemicals are in each container you work with in your department

You Should KNOW…. Continued

6. What personal protective equipment to wear when using a chemical (found on MSDS sheet)
7. Information to protect yourself from all chemicals (even common ones such as rubbing alcohol and bleach)
8. How to check the MSDS sheet for cleaning up a particular spill
9. First aid procedures for the chemicals in your area if an accident occurs (found on MSDS sheet)
10. How to properly store the chemicals with which you work

Safety Training Contact

For answers to questions, interactive discussion or other information related to *Hazcom*, please Contact:

Dwayne Hawkins

Safety & Training Specialist

898-7715

dhawkins@rutherfordcountytn.gov

Quiz

Click on the link below to take a 5-Question Quiz.

https://secure.rutherfordcountytn.gov/hazard

You must take the quiz to receive credit for the Safety Training.

Once you have linked to the quiz, please enter your Social Security Number at the top. You will need to enter it according to the example shown (ex. 999-99-9999 with hyphens included). Once finished with the questions, please click the submit button and your training will be recorded.