

## WHAT ARE HAZARDOUS MATERIALS?

Hazardous materials are chemical substances, which if released or misused can pose a threat to the environment or health. These chemicals are used in industry, agriculture, medicine, research, and consumer goods. Hazardous materials come in the form of explosives, flammable and combustible substances, poisons, and radioactive materials. These substances are most often released as a result of transportation accidents or because of chemical accidents in a plant.



### FYI:

- Most victims of chemical accidents are injured at home. These incidents usually result from ignorance or carelessness in using flammable or combustible materials.
- More than 30 states have passed laws giving workers and citizens access to information about hazardous substances in their workplaces and communities. As many as 500, 000 products pose physical or health hazards and can be defined as "hazardous chemicals."
- Each year over 1,000 new synthetic chemicals are introduced.
- The Department of Transportation regulates routes and speed limits used by carriers and monitors the types of hazardous materials crossing state lines.
- In an average community of 100,000 residents, 23.5 tons of toilet bowl cleaner, 13.5 tons of liquid household cleaners, 3.5 tons of motor oil are discharged into city drains each month.
- Hazardous materials in various forms can cause death, serious injury, long lasting health effects, and damage to buildings , homes and other property. Many products containing hazardous chemicals are used and stored in homes routinely. These products are also shipped daily on the nation's highways, railroads, waterways, and pipelines.

### HAZARDOUS MATERIALS ACCIDENTS:

A hazardous materials accident can happen anywhere and at anytime. Communities located near chemical manufacturing plants are particularly at risk. However, hazardous materials are transported on our roadways and railways daily, so any area is considered vulnerable to an accident.

### BEFORE:

Learn to detect the presence of a hazardous material. Many hazardous materials do not have a taste or an odor. Some materials can be detected because they cause physical reactions such as watering eyes or nausea. Some hazardous materials exist beneath the surface of the ground and can be recognized by an oil or foam-like appearance. Find out evacuation plans for your workplace and your children's schools. Be ready to evacuate. Plan several evacuation routes out of the area.

Have Disaster Supplies on Hand.

### Develop an emergency communication plan.

In case family members are separated from one another during a hazardous materials accident (this is a real possibility during the day when adults are at work and children are at school), develop a plan for reuniting after the disaster. Ask an out-of-state relative or friend to serve as the "family contact." After a disaster, it's

often easier to call long distance. Make sure everyone knows the name, address, and phone number of the contact person.

## **DURING:**

### **If asked to stay indoors ("Sheltering-In-Place")**

Seal your home or work place so contaminants cannot enter. Bring pets inside. Avoid eating or drinking any food or water that may be contaminated. Monitor the local Emergency Alert System (EAS) radio or television station for further updates and remain in shelter until authorities indicate it is safe to come out.

### **Recommended Shelter-In-Place Instructions**

- Close all doors to the outside and close and lock all windows (windows sometimes seal better when locked).
- Building superintendents should set all ventilation systems to 100 percent recirculation so that no outside air is drawn into the structure. When this is not possible, ventilation system should be turned off.
- Turn off all heating systems .
- Turn off all air-conditioners and switch inlets to the "closed" positions. Seal any gaps around window type air-conditioners with tape and plastic sheeting, wax paper, or aluminum wrap.
- Turn off all exhaust fans in kitchens, bathrooms, and other spaces.
- Close all fireplace dampers.
- Close as many internal doors as possible in your home or other building.
- Use tape and plastic food wrapping, wax paper, or aluminum wrap to cover and seal bathroom exhaust fan grilles, range vents, dryer vents, and other opening to the outside to the extent possible (including any obvious gaps around external windows and doors).
- If the gas or vapor is soluble or even partially soluble in water -- hold a wet cloth or handkerchief over your nose and mouth if the gases start to bother you. For a higher degree of protection, go into the bathroom, close the door, and turn on the shower in a strong spray to "wash" the air. Seal any openings to the outside of the bathroom as best you can. Don't worry about running out of air to breathe. That is highly unlikely in normal homes and buildings.
- If an explosion is possible outdoors -- close drapes, curtains, and shades over windows. Stay away from external windows to prevent potential injury from flying glass.
- Minimize the use of elevators in buildings. These tend to "pump" outdoor air in and out of a building as they travel up and down.
- Tune into the Emergency Alert System Station on your radio for further information and guidance.

## **EVACUATION:**

Authorities will decide if evacuation is necessary based primarily on the type and amount of chemical released and how long it is expected to affect an area. Other considerations are the length of time it should take to evacuate the area, weather conditions, and the time of day. If you are told to evacuate:

- Stay tuned to a radio or television for information on evacuation routes, temporary shelters, and procedures.
- Follow the routes recommended by the authorities--shortcuts may not be safe.
- If you have time, minimize contamination in the house by closing all windows, shutting all vents, and turning off attic fans.
- Take your pre-assembled disaster supply kit.
- Your pets will also need to evacuate, take them with you.
- Remember to help your neighbors who may require special assistance--infants, elderly people and people with disabilities.
- Leave as soon as you can.

**If you are caught at the scene of an accident \*\*\*Do Not Drive through smoke or clouds at the scene they may contain hazardous chemicals!\*\*\***

**If you see an accident, call 9-1-1** to report the nature and location of the accident as soon as possible. Move away

from the accident scene and help keep others away. Do not walk into or touch any of the spilled substance. Try not to inhale gases, fumes, and smoke. If possible, cover mouth with a cloth while leaving the area. Stay away from accident victims until the hazardous material has been identified. Try to stay upstream, uphill, and upwind of the accident.

**AFTER:**

Return home only when authorities say it is safe. Follow local instructions concerning the safety of food and water. Clean up and dispose of residue carefully. Follow instructions from emergency officials concerning clean-up methods.