

# FACT SHEET



Federal Emergency Management Agency

## HAZARDOUS MATERIALS ACCIDENTS

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

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.

Contact your Local Emergency Planning Committee (LEPC) or local emergency management office for information about hazardous materials and community response plans.

Find out evacuation plans for your workplace and your children's schools.

Be ready to evacuate. Plan several evacuation routes out of the area.

Ask about industry and community warning systems.

Have disaster supplies on hand.

- Flashlight and extra batteries
- Portable, battery-operated radio and extra batteries
- First aid kit and manual
- Emergency food and water
- Nonelectric can opener
- Essential medicines
- Cash and credit cards
- Sturdy shoes

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.

If you hear a siren or other warning signal, turn on a radio or television for further emergency information.

### IF CAUGHT AT THE SCENE OF AN ACCIDENT

If you see an accident, call 9-1-1 or the local fire department 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.

**IF ASKED TO STAY INDOORS  
("IN-PLACE SHELTERING")**  
Seal house so contaminants cannot enter.

- Close and lock windows and doors.
- Seal gaps under doorways and windows with wet towels and duct tape.
- Seal gaps around window and air conditioning units, bathroom and kitchen exhaust fans, and stove and dryer vents with duct tape and plastic sheeting, wax paper, or aluminum wrap.
- Close fireplace dampers.
- Close off nonessential rooms such as storage areas, laundry rooms, and extra bedrooms.
- Turn off ventilation systems.

**Assisting  
Accident Victims**

Don't try to care for victims of a hazardous materials accident until the substance has been identified and authorities indicate it is safe to go near victims. Then you can move victims to fresh air and call for emergency medical care. Remove contaminated clothing and shoes and place them in a plastic bag. Cleanse victims that have come in contact with chemicals by immediately pouring cold water over the skin or eyes with running water for at least 15 minutes, unless authorities instruct you not to use water on the particular chemical involved.

**Bring pets inside.**

Immediately after the "in-place sheltering" announcement is issued, fill up bathtubs or large containers for an additional water supply and turn off the intake valve to the house.

If gas or vapors could have entered the building, take shallow breaths through a cloth or a towel.

Avoid eating or drinking any food or water that may be contaminated.

Monitor the local Emergency Broadcast System station for further updates and remain in shelter until authorities indicate it is safe to come out.

**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 ASKED 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. Leave at once.

If you have time, minimize contamination in the house by closing all windows, shutting all vents, and turning off attic fans.

Take pre-assembled disaster supplies.

Remember to help your neighbors who may require special assistance — infants, elderly people and people with disabilities.

Return home only when authorities say it is safe.

Follow local instructions concerning the safety of food and water.

Cleanup and dispose of residue carefully. Follow instructions from emergency officials concerning clean-up methods.

# HAZARDOUS MATERIALS

## EMERGENCY INFORMATION

1. 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.
2. Varying quantities of hazardous materials are manufactured, used, or stored at an estimated 4.5 million facilities in the United States — from major industrial plants to local dry cleaning establishments or gardening supply stores.
3. The *Emergency Planning and Community Right-to-Know Act* requires that detailed information about hazardous substances in or near communities be available at the public's request. The law provides stiff penalties for companies that fail to comply and allows citizens to file lawsuits against companies and government agencies to force them to obey with the law.

MODE OF TRANSPORTATION	NUMBER OF ACCIDENTS	ASSOCIATED DEATHS	ASSOCIATED INJURIES
AIR	1,220	0	153
HIGHWAY	41,781	79	1,569
RAILWAY	7,886	1	423
WATER	83	1	35
OTHER	29	0	2
TOTAL	50,999	81	2,182

Hazardous Materials Incidents by Transportation Mode (totals, 1983 thru 1990\*)

Between 1982 and 1991, there were an annual average of 6,774 hazardous materials transportation incidents. In 1991, there were 9,069 transportation incidents that resulted in 10 deaths and 436 injuries.

## 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 plants.*

## HELP YOUR COMMUNITY GET READY

The media can raise awareness about hazardous materials by providing important information to the community. Here are some suggestions:



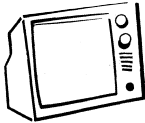
1. Publish a special section in your local newspaper with emergency information on hazardous materials. Localize the information by printing the phone numbers of the local poison control center, emergency services offices, the American Red Cross, and hospitals.

2. Interview a member of your community's Local Emergency Planning Committee about what hazardous substances may be in your community, and by what routes they are transported through the area.



3. Publish a chart of warning symbols and terms.

4. Publish a series on hazardous materials that can be found in the home and the proper antidotes for them.



5. Stage a demonstration to show people how to properly seal off their homes by working with emergency building materials such as sandbags, plywood, and plastic sheeting.

## DID YOU KNOW...

- Most victims of chemical accidents are injured at home. These incidents usually result from ignorance or carelessness in using flammable or combustible materials.
- 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.
- More than 30 states have passed laws giving workers and citizens access to information about hazardous substances in their workplaces and communities.
- 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 city of 100,000 residents, 23.5 tons of toilet bowl cleaner, 13.5 tons of liquid household cleaners, and 3.5 tons of motor oil are discharged into city drains each month.

## HAZARDOUS MATERIALS WARNING PLACARDS

The U.S. Department of Transportation employs a labeling and placarding system for identifying the types of hazardous materials that are transported along the nation's highways, railways, and waterways. This system enables local emergency officials to identify the nature and potential health threat of chemicals being transported into your community. Were a chemical accident to occur in your community, local emergency officials and the fire department would be able to determine the proper emergency response procedures for the situation by the type of placard or warning label.

## LOCAL EMERGENCY PLANNING COMMITTEES

In 1986, Congress passed the Superfund Amendments and Reauthorization Act (SARA) of 1986. Title III of this legislation requires that each community establish a Local Emergency Planning Committee (LEPC) to be responsible for developing an emergency plan for preparing for and responding to chemical emergencies in that community.

This emergency plan must include the following: an identification of local facilities and transportation routes where hazardous materials are present; the procedures for immediate response in case of an accident (this must include a community-wide evacuation plan); a plan for notifying the community that an incident has occurred; the names of response coordinators at local facilities; and a plan for conducting exercises to test the plan. The plan is reviewed by the State Emergency Response Commission (SERC) and publicized throughout the community. The LEPC is required to review, test, and update the plan each year.