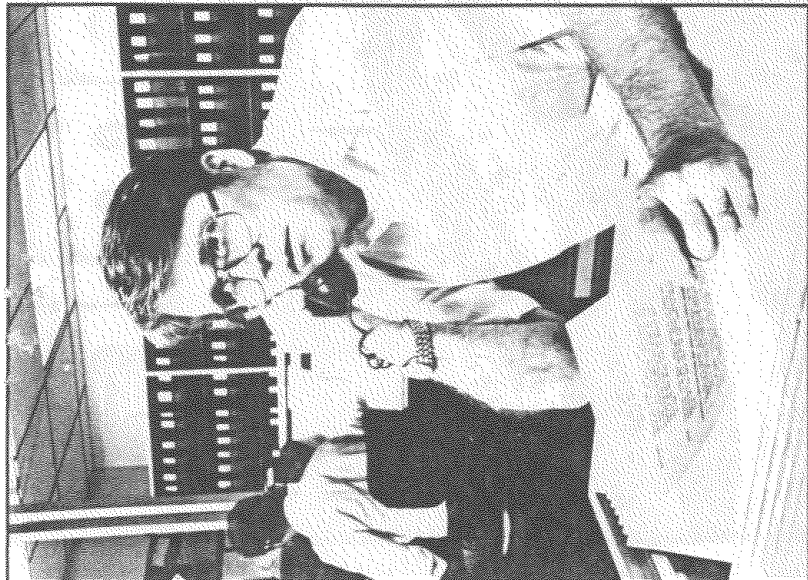




It works like this: Participating chemical companies include in their shipping documents instruction on how to reach CHEMTREC by phone in the event of a spill, leak, fire, exposure or accident involving their products in transit. CHEMTREC's toll-free phone number also is widely circulated to firemen, police, other public officials and freight carriers.

An emergency call to CHEMTREC is taken by a communicator, part of a team that operates the Center around the clock. Recording details in writing, on a video screen and by tape recorder, he questions the caller to get as much essential information as possible. With that in hand, the communicator retrieves from a file of 45,000 product and trade name listings the best available information on the chemicals involved.

A fire chief, for example, may call CHEMTREC about a train derailment. Tank cars containing several different chemicals are involved. By referring to the files on those materials, a communicator can advise the chief immediately what to do and, equally important, what not to do.

After the "how-to-handle-it" information is passed to the caller, CHEMTREC immediately relays relevant facts to the company shipping the product. The company then has its technical experts get in touch with emergency services or carriers on the scene.

Chemicals and Transportation

The chemical industry has a dual role in transportation—as a shipper and as a contributor to advances. The two industries are inseparably linked, with the needs of one often met by the other.

- **In space travel**, for instance, liquid hydrogen and oxygen are used to boost huge payloads into space. Plastics are used extensively—from fluorocarbon resins for insulation to polyester film for packaging meals. Oxygen is part of an astronaut's life support system, and pressurized space suits are made of neoprene.
- **Methanol and alcohol** are used as blending agents for stretching supplies of gasoline.
- **Reinforced plastics** are used in passenger cars and trucks to reduce weight and contribute to greater gas mileage. Automobiles will be 500 pounds lighter by 1990 through wider use of plastic parts in place of current materials.
- **Eighty percent of the rubber products** produced in the United States, such as automobile tires, hoses and belts, are synthetics made from petrochemicals. The industry also uses carbon black, titanium dioxide, plasticizers and antioxidants in producing rubber products.

The chemical industry produces more than 270 million tons of chemicals a year. In 1980, the chemical and allied products industry had shipments valued at \$162.4 billion, making it the fourth largest U.S. manufacturing industry. Producing these vital chemicals provides jobs for 1,100,000 people in the chemical industry alone and for still other millions in "down stream" or chemical processing companies.

Making and shipping products safely while protecting the people and the environment—this is the chemical industry's commitment to us all.

Other booklets in this series:

- Cleaning Safe Water*
- Cleaning the Air*
- Chemical Product Safety*
- Managing Chemical Wastes*
- Chemical Worker Safety*

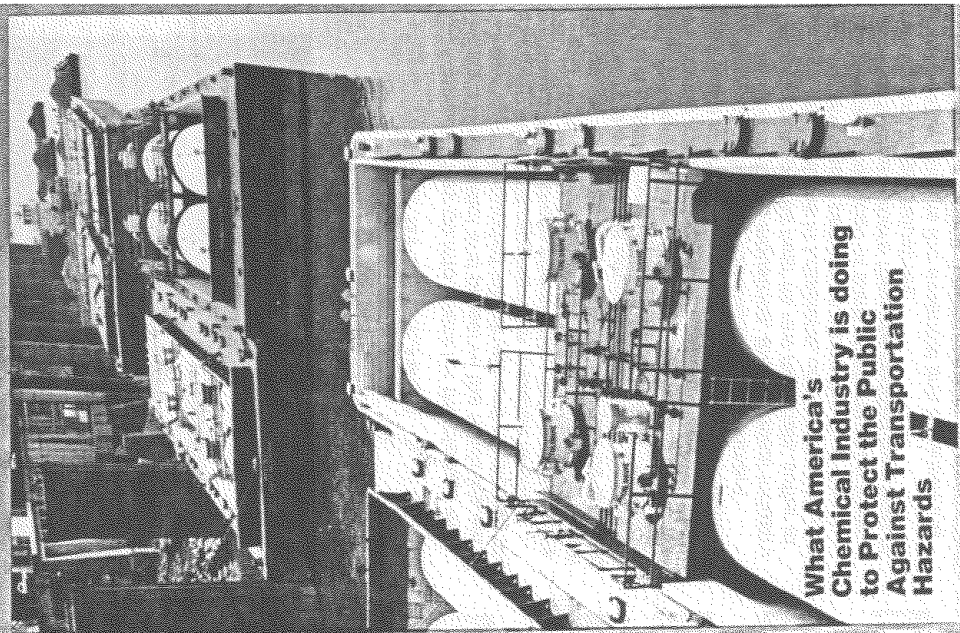


**CHEMICAL
MANUFACTURERS
ASSOCIATION**

2501 M Street, NW
Washington, DC 20037

202/887-1100

Transporting chemicals safely





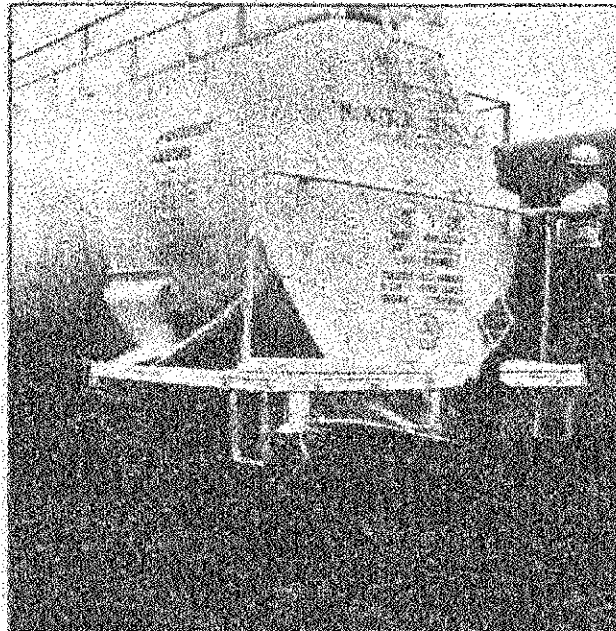
Emergency!

Even with precautions, accidents do happen. When hazardous chemicals are involved, quick and effective response is vital.

That's why **CHEMTREC**, the CMA Chemical Transportation Emergency Center in Washington, D.C., operates 24 hours a day; it is an industry-sponsored public service providing instant information to carriers and public safety officials faced with an emergency.

CHEMTREC, started by the industry in 1971, has an around-the-clock staff of trained communicators who can provide immediate, accurate information about more than 45,000 products to emergency forces on the scene. By September of 1991 it will have handled 146,000 telephone calls of which 43,000 involved emergencies. During this ten year period CHEMTREC will have handled 20,500 emergencies, of which 85 percent were in transportation.

CHEMTREC's valuable public service has won commendation from the Department of Transportation, which recognized CHEMTREC working with the National Response Center of the U.S. Coast Guard as the central emergency response service for incidents involving transportation of hazardous materials.



It's A Cooperative Effort

The chemical industry doesn't do it alone. It works with the carriers of chemicals to improve safety.

In cooperation with the railroads, for example, newer, safer equipment for chemical shipments has been designed.

Head shields for tank cars carrying compressed gases help absorb the impact of a collision or derailment and reduce the chance of tank car ruptures. Shelf couplers that hold cars together better in case of a derailment; insulation to protect tank cars carrying pressurized, flammable gases; domes on top of rail cars to reduce damage to valves if a car should roll over—all are used to make shipments safer.

Trucking companies, which move about 35 percent of chemical shipments, work to improve chemical product safety on the nation's highways. They have special driver training programs, as well as joint chemical industry-trucking industry programs, which cover equipment design, emergency response and shipper-carrier cooperation.