



Hazmat Transportation Safety Fact Sheet

What is hazmat?

Hazmat is short for hazardous material. While many federal agencies use this term, it usually refers to materials designated by the U.S. Department of Transportation (DOT) as posing potential hazards to the public or the environment. Hazmat includes: hazardous substances and wastes, marine pollutants, explosives, flammable or radioactive materials, poisons, and chemicals that can be harmful when swallowed or inhaled (known as toxic inhalation hazards, or TIH.)

Why is hazmat important?

Hazardous materials, including some chemicals, are crucial for the production of many essential products that protect our health and safety and drive our economy. Americans expect clean and safe water from the tap, access to life-saving medications and medical devices, protective equipment and body armor for family members in military service and law enforcement, a safe and plentiful food supply, energy-saving technologies, and more. Hazardous materials help produce the products that fulfill these expectations, and often, there are no acceptable, non-hazardous substitutes that ensure equal safety and performance.

ACC member companies manufacture and transport chemicals, including those classified as hazardous materials, which help make people's lives better, healthier, and safer and contribute to a greener, cleaner environment and a more competitive economy.

In addition to providing nearly 800,000 jobs and driving more than \$100 billion in new investment in the U.S., the business of chemistry provides the building blocks that are needed to help produce food, generate energy, and manufacture everything from automobiles to microchips. And sometimes, these vital processes require hazmat to produce safe and successful end results.

Why must hazmat be transported?

Typically, the production of chemicals and other hazmat requires a combination of resources, raw materials, and electrical power. Manufacturing facilities generally are located where these resources are accessed, but customer facilities that use hazmat are often located somewhere else. For example, ethylene oxide is a versatile industrial chemical used to make fiberglass, synthetic fibers, and anti-freeze, among other important products. It is also used to sterilize medical equipment and instruments when they are manufactured and, again, in



hospitals. But it is made in only 11 domestic facilities and must be transported to thousands of end-use facilities.

What programs are in place to ensure hazmat is transported safely?

To ensure the safe and reliable transportation of hazardous materials and the flow of interstate commerce, the federal government maintains a comprehensive, uniform set of rules administered by DOT. Under the direction of Congress, DOT has jurisdiction over all hazmat transportation and has established detailed rules for the shipping and labeling of all hazmat and for the training of employees who transport these materials.

Today, more than 20 federal laws and numerous state and local statutes regulate the transportation of hazardous materials. Recognizing that safety requires an ongoing partnership between government, producers, and transportation companies, industry has undertaken significant initiatives on its own. The chemical and transportation industries have invested - and will continue to invest - billions of dollars in new technologies, training, and safety systems, including safer rail tank cars.

What resources are available to communities to help them prepare for and deal with hazmat incidents?

We are proud to be both resources and partners to our communities, railroads, local jurisdictions, and the emergency response community. We bring training programs to emergency responders through TRANSCAER[®] (Transportation Community Awareness and Emergency Response), which was developed by ACC members, railroads, and other transportation stakeholders to help communities prepare for and respond to possible hazardous material transportation incidents. This program has helped train tens of thousands of emergency responders across the nation.

In addition, we help provide emergency responders with critical information when they need it through CHEMTREC[®], which serves as an around-the-clock resource for obtaining immediate and critical response information for incidents involving hazardous materials and dangerous goods. CHEMTREC is linked to the largest network of chemical and hazardous material experts in the world, including chemical and response specialists, public emergency services, and private contractors.

DOT also operates a program - Hazardous Materials Grant Program - to fund training and planning grants for emergency responders by collecting registration fees from hazmat shippers and carriers. Since its inception, the program has awarded \$182 million dollars in grants and has trained over 2.2 million responders and other safety professionals.

How safe is hazmat transportation by rail?

We've witnessed a century of safe transportation of these critical materials, and this strong record can be attributed to the fact that everyone in the chain of commerce - from manufacturing and packaging to delivery - takes their safety responsibility seriously. By



working together, shippers and rail carriers along with the federal government have been able to greatly reduce the number of accidents and their impacts.

This collective is successful because it involves a comprehensive approach that starts with preventing accidents and then minimizing potential impacts. Thanks to this collaborative effort, rail continues to be one of the safest modes of transporting chemical products.

According to the Association of American Railroads:

- In 2012, North American railroads safely delivered more than 2.47 million carloads of hazardous materials. (Source: 2012 Bureau of Alcohol, Tobacco, Firearms and Explosives Annual Report)
- More than 99.99 percent of hazardous material carloads moving by rail arrive at their destination without a release caused by an accident. (Source: AAR Analysis of FRA Train Accident Database. Carloads from ICC/STB Waybill Sample)
- Rail hazmat accident rates have declined 91 percent since 1980. (Source: AAR Analysis of FRA Train Accident Database. Carloads from ICC/STB Waybill Sample)

While the nation's hazmat transportation system is safe, producers, shippers, and government continually strive to make it safer. Our members are heavily invested in advancing safety - not only in the transportation of their products, but in all aspects of their operations.

This commitment to safety is clearly demonstrated through ACC's Responsible Care® program, which is the chemical industry's comprehensive environmental, health, safety, and security performance initiative and is mandatory for membership in ACC. The Responsible Care program is designed for continuous improvement and has already contributed to one of the strongest safety records in U.S. manufacturing. Under this program, member companies are committed to a set of goals and guidelines that go above and beyond federal regulation on health, safety, security, and the environment.

In short, hazmat transportation safety reflects an ongoing process of continual improvement across all modes. The safety partnership between government, transportation companies, and the chemical industry continues to play a leading role in protecting the public.

