

What Railroads Haul: Ethanol

Ethanol production is concentrated in the Midwest where most of the corn that goes into most ethanol production is grown. Many of the major markets for ethanol are on the East Coast, California and Texas. Thus, large amounts of ethanol are transported from production to consumption areas. Railroads are often the mode of choice, accounting for 65% to 70% of ethanol transport.

Each of the seven U.S. Class I railroads transports ethanol, with some serving several dozen plants.

However, a significant share of ethanol rail movements originates on non-Class I railroads. This fact is not surprising given the rural nature of many short lines and much of America's ethanol production. Most corn used in ethanol production moves to ethanol plants by truck, although at a few ethanol plants corn arrives by rail.

For rail traffic purposes, ethanol is classified as a chemical, and it is the highest-volume chemical railroads carry. In 2018 (the most recent year for which data are available), U.S. railroads transported 377,674 carloads of ethanol. In 2018, ethanol accounted for 1.2% of U.S. rail carloads, 2.1% of rail tonnage, and 2.6% of rail ton-miles.

Railroads safely move ethanol.

Most ethanol carried by railroads moves in approximately 30,000-gallon tank cars. Almost all these cars are owned by shippers or leasing companies, not by railroads. Many chemicals, including ethanol, are considered hazardous materials (hazmat). Thanks to tougher tank car designs, technologies that monitor track and rail car health and first responder training, more than 99.99% of all hazmat moved annually by rail reaches its destination without a release caused by a train accident.

Key Takeaways

- Freight railroads work closely with ethanol producers and consumers to help ensure that America's ethanol transportation needs are met safely and efficiently.
- The more than 377,000 carloads of ethanol railroads carried in 2018 accounted for 1.2% of total carloads.
- The U.S. ethanol industry has grown tremendously. In 2021, U.S. ethanol production was approximately 15 billion gallons.
- More than 99.99% of all hazmat moved annually by rail reaches its destination without a release caused by a train accident.

