Transportation of Hazardous Goods in the United States: Data from the 2007 Commodity Flow Survey

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Commodity Flow Survey

- The Commodity Flow Survey (CFS) is a comprehensive source of information on United States domestic freight flows. It is a shipper based survey that provides information on commodities shipped by either single modes or multiple modes of transportation: value, weight, distance, ton-miles and origin/destination data.
- Conducted through a major partnership between:
  - Bureau of Transportation Statistics (BTS) – A part of the Research and Innovative Technology Administration of the U.S. Department of Transportation
  - U.S. Census Bureau – A part of the U.S. Department of Commerce
- About 100,000 shippers were surveyed
- Data were disseminated via American Fact Finder: [http://factfinder.census.gov/](http://factfinder.census.gov/)
2007 CFS: Value of Hazardous Materials as Percent of Total

Total - $11.68 trillion

Hazardous Materials - $1.45 trillion

Non-Hazardous Materials 87.6%

Hazardous Materials, 12.4%
2007 CFS: Value of Hazardous Materials by Mode

Total - $1.45 trillion

- Truck, $837,074
- Pipeline, $393,408
- Rail, $69,213
- Water, $69,186
- Multiple modes, $71,069
- Other and Unknown, $6,534

Dollars in Millions (Except Total)
2007 CFS: Hazardous Versus Non-Hazardous Materials

Metric tons: Hazardous - 2.02 billion  
Non-Hazardous - 17.8 billion

Ton – kilometers: Hazardous - 472.2 billion  
Non-Hazardous - 4,410.9 billion

Percent

Metric tons

Ton-kilometers

Hazardous  Non-Hazardous

17.8  9.7
2007 CFS: Tons of Hazardous Materials by Mode

Total – 2.02 billion metric tons
2007 CFS: Ton-kilometers of Hazardous Materials by Mode

Total – 472.2 billion metric ton-kilometers

- Truck, 32.2%
- Rail, 28.5%
- Multiple Modes, 13.3%
- Water, 11.5%
- Pipeline, Air, Other & Unknown, 14.6%
2007 CFS: Value of Hazardous Material by UN Class

Total – $1.45 Trillion

- Flammable Liquids, $1,170,455
- Gases, $131,810
- Explosives, $11,754
- Corrosive Materials, $51,475
- Miscellaneous, $30,131
- Toxic and Infectious Materials, $21,198
- Radioactive Materials, $20,633
- Oxidizers and Organic Peroxides, $6,695
- Flammable Solids, $4,067

Dollars in Millions (Except Total)
Reported Hazardous Materials Incidents, 2001 to 2010

Note: Hazardous materials moved by water includes packaged goods only, such as drums and containers. Does not include tankers, barges and large vessels which carry hazardous materials in bulk.

Source: Pipeline and Hazardous Materials Safety Administration, US DOT
Reported Hazardous Injuries by Mode, 2001 to 2010

Note: Hazardous materials moved by water includes packaged goods only, such as drums and containers. Does not include tankers, barges and large vessels which carry hazardous materials in bulk.

Source: Pipeline and Hazardous Materials Safety Administration, US DOT
Reported Hazardous Fatalities by Mode, 2001 to 2010

Note: There were no hazardous materials fatalities by air between 1998 and 2010. Hazardous materials moved by water includes packaged goods only, such as drums and containers. Does not include tankers, barges and large vessels which carry hazardous materials in bulk.

Source: Pipeline and Hazardous Materials Safety Administration, US DOT
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