

**HAZARDOUS MATERIALS SAFETY  
HAZARDOUS MATERIALS INFORMATION SYSTEM  
HAZMAT SUMMARY BY Mode of Transportation / Cause FOR 2009**

**Serious Incidents\***

Mode of Transportation / Cause	Incidents	INJURIES		Fatalities	Damages
		Hospitalized	Non-Hospitalized		
<b>Air</b>					
Defective Component or Device	1	0	0	0	0
Dropped	2	0	0	0	300,000
Forklift Accident	2	0	0	0	0
Impact with Sharp or Protruding Object (e.g., nail)	1	0	0	0	0
Improper Preparation for Transportation	4	0	0	0	0
Too Much Weight on Package	1	0	0	0	0
Valve Open	1	0	0	0	0
Cause Not Reported	3	0	0	0	0
<b>Highway</b>					
Abrasion	3	0	0	0	553,461
Broken Component or Device	6	0	0	0	122,253
Corrosion - Exterior	1	0	0	0	0
Corrosion - Interior	2	0	0	0	45,200
Defective Component or Device	15	0	0	0	117,588
Deterioration or Aging	7	1	2	0	93,897
Dropped	8	2	2	0	247,388
Fire, Temperature, or Heat	11	2	1	0	1,941,026
Forklift Accident	17	1	3	0	99,789
Freezing	2	0	0	0	4,900
Human Error	38	1	6	0	809,464
Impact with Sharp or Protruding Object (e.g., nail)	11	0	0	0	393,761
Improper Preparation for Transportation	4	1	0	0	57,100
Inadequate Accident Damage Protection	1	0	0	0	6,900
Inadequate Blocking and Bracing	2	0	0	0	17,000
Inadequate Maintenance	1	0	0	0	45,200
Inadequate Preparation for Transportation	3	0	0	0	58,699
Incompatible Product	1	0	0	0	16,000
Incorrectly Sized Component or Device	1	0	0	0	4,350
Loose Closure, Component, or Device	13	0	3	0	1,634,748
Misaligned Material, Component, or Device	1	0	0	0	0
Overfilled	16	0	0	0	117,880
Rollover Accident	56	1	21	1	8,856,968
Threads Worn or Cross Threaded	1	0	0	0	0
Too Much Weight on Package	3	0	9	0	19,800
Valve Open	3	0	0	0	65,191
Vandalism	2	0	0	0	67,000
Vehicular Crash or Accident Damage	55	3	3	1	8,783,621
Cause Not Reported	70	4	27	4	8,348,960

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		Hospitalized	Non-Hospitalized		
<b>Rail</b>					
Abrasion	1	0	0	0	8,008
Broken Component or Device	1	0	0	0	700
Conveyer or Material Handling Equipment Mishap	1	0	3	0	113,000
Corrosion - Interior	2	0	0	0	40,072
Defective Component or Device	2	0	1	0	6,000
Derailment	11	2	6	1	13,197,309
Deterioration or Aging	3	1	0	0	4,242
Human Error	3	0	0	0	94,904
Improper Preparation for Transportation	2	0	0	0	19,334
Inadequate Preparation for Transportation	2	4	1	0	7,503
Loose Closure, Component, or Device	2	0	0	0	13,401
Misaligned Material, Component, or Device	1	0	0	0	704
Missing Component or Device	4	1	0	0	22,664
Over-pressurized	2	2	0	0	3,500
Rollover Accident	3	0	0	0	1,045,000
Stub Sill Separation from Tank (Tank Cars)	1	0	0	0	37,000
Valve Open	1	0	0	0	147,000
Cause Not Reported	2	0	0	0	539,958
<b>Water</b>					
Inadequate Blocking and Bracing	1	0	0	0	89,527
Overfilled	1	0	0	0	0
Cause Not Reported	1	0	0	0	600
<b>Totals By Mode</b>					
Air Incidents	15	0	0	0	300,000
Highway Incidents	354	16	77	6	32,528,144
Rail Incidents	44	10	11	1	15,300,299
Water Incidents	4	0	0	0	90,727
<b>Total - 2009</b>	<b>416</b>	<b>26</b>	<b>88</b>	<b>7</b>	<b>48,218,570</b>

Note: Due to multiple causes being involved in a single incident, the totals above may not correspond to the totals in the other reports.

\* PHMSA revised the definition of a serious incident in 2002. This is the current definition:

- a fatality or major injury caused by the release of a hazardous material,
- the evacuation of 25 or more persons as a result of release of a hazardous material or exposure to fire,
- a release or exposure to fire which results in the closure of a major transportation artery,
- the alteration of an aircraft flight plan or operation,
- the release of radioactive materials from Type B packaging,
- the release of over 11.9 gallons or 88.2 pounds of a severe marine pollutant, or
- the release of a bulk quantity (over 119 gallons or 882 pounds) of a hazardous material.