

**U.S. DEPARTMENT OF TRANSPORTATION  
HAZARDOUS MATERIALS SAFETY  
HAZARDOUS MATERIALS INFORMATION SYSTEM  
HAZMAT SUMMARY BY MODE / CAUSE FOR CALENDAR YEAR - 1998**

Mode / Cause	Incidents	Injuries		Deaths	Damages
		Major	Minor		
<b>SERIOUS INCIDENTS*</b>					
<b>Air</b>					
Human Error	18	1	3	0	22,868
Package Failure	1	0	0	0	3,300
Vehicular Accident/Derailment	2	0	0	0	0
Other	2	0	0	0	0
SUBTOTAL:	23	1	3	0	26,168
<b>Highway</b>					
Human Error	56	9	25	5	297,660
Package Failure	19	5	4	0	460,996
Vehicular Accident/Derailment	264	3	6	8	21,488,762
Other	1	0	0	0	85
SUBTOTAL:	340	17	35	13	22,247,503
<b>Railway</b>					
Human Error	9	2	0	0	15,372
Package Failure	9	1	2	0	49,526
Vehicular Accident/Derailment	50	1	3	0	15,320,681
SUBTOTAL:	68	4	5	0	15,385,579
<b>Water</b>					
Vehicular Accident/Derailment	0	0	0	0	0
Other	0	0	0	0	0
SUBTOTAL:	0	0	0	0	0
<b>Other</b>					
Human Error	0	0	0	0	0
Package Failure	0	0	0	0	0
Vehicular Accident/Derailment	0	0	0	0	0
Other	0	0	0	0	0
SUBTOTAL:	0	0	0	0	0
<b>Total - 1998:</b>	<b>431</b>	<b>22</b>	<b>43</b>	<b>13</b>	<b>37,659,250</b>

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

\* PHMSA revised the definition of a serious incident in 2002. This report uses the previous definition:

- a fatality or major injury caused by the release of a hazardous material,
- closure of a major transportation artery,
- the evacuation of 6 or more persons due to the presence of a hazardous material,
- a vehicle accident or derailment resulting in the release of a hazardous material