

General non-bulk and IBCs		Cylinders	
Code	What failed	Code	What failed
105	Bolts or Nuts	113	Cylinder Sidewall—Other
108	Chime	114	Cylinder Valve
109	Closure (e.g., Cap, Top, or Plug)	119	Frangible Disc
110	Cover	120	Fusible Pressure Relief Device or Element
119	Frangible Disc	122	Gauging Device
120	Fusible Pressure Relief Device or Element	132	Liner
121	Gasket	143	Pressure Relief Valve or Device—Non-Reclosing
125	Hose	144	Pressure Relief Valve or Device—Reclosing
128	Inner Packaging	161	Weld or Seam
129	Inner Receptacle		
130	Lifting Feature	Code	How Failed
132	Liner	301	Abraded
140	Outer Frame	303	Burst or Ruptured
143	Pressure Relief Valve or Device—Non-Reclosing	304	Cracked
144	Pressure Relief Valve or Device—Reclosing	306	Failed to Operate
161	Weld or Seam	307	Gouged or Cut
		308	Leaked
		309	Punctured
		313	Vented
Code	How Failed		
301	Abraded	Code	Causes of Failure
302	Bent	501	Abrasion
303	Burst or Ruptured	502	Broken Component or Device
304	Cracked	503	Commodity Self-ignition
305	Crushed	504	Commodity Polymerization
306	Failed to Operate	505	Conveyer or Material Handling Equipment Mishap
307	Gouged or Cut	506	Corrosion—Exterior
308	Leaked	507	Corrosion—Interior
309	Punctured	508	Defective Component or Device
310	Ripped or Torn	510	Deterioration or Aging
311	Structural	512	Fire, Temperature, or Heat
312	Torn Off or Damaged	513	Forklift Accident
313	Vented	514	Freezing
		515	Human Error
		516	Impact with Sharp or Protruding Object (e.g., nails)
Code	Cause(s) of Failure	517	Improper Preparation for Transportation
501	Abrasion	519	Inadequate Blocking and Bracing
503	Commodity Self-ignition	520	Inadequate Maintenance
504	Commodity Polymerization	521	Inadequate Preparation for Transportation
505	Conveyer or Material Handling Equipment Mishap	522	Inadequate Procedures
506	Corrosion—Exterior	523	Inadequate Training
507	Corrosion—Interior	524	Incompatible Product
508	Defective Component or Device	525	Incorrectly Sized Component or Device
510	Deterioration or Aging	526	Loose Closure, Component, or Device
511	Dropped	527	Misaligned Material, Component, or Device
513	Forklift Accident	528	Missing Component or Device
514	Freezing	529	Overfilled
515	Human Error	530	Over-pressurized
516	Impact with Sharp or Protruding Object (e.g., nails)	535	Valve Open
517	Improper Preparation for Transportation	536	Vandalism
521	Inadequate Preparation for Transportation	537	Vehicular Crash or Accident Damage
522	Inadequate Procedures	538	Water Damage
523	Inadequate Training		
529	Overfilled		
530	Overpressurized		
534	Too Much Weight on Package		
535	Valve Open		
536	Vandalism		
537	Vehicular Crash or Accident Damage		
538	Water Damage		
Portable tanks		Bulk tank vehicles—cargo tank motor vehicles (CTMV) and tank cars	
Code	What failed	Code	What failed
105	Bolts or Nuts	101	Air Inlet
106	Bottom Outlet Valve	105	Bolts or Nuts
107	Check Valve	106	Bottom Outlet Valve
108	Chime	107	Check Valve
109	Closure (e.g., Cap, Top, or Plug)	110	Cover