



Hazard Classifications Used in Hazmat Table, Column 3

Class Number	Division Number (if any)	Name of class or division	Known hazards
None	.....	Forbidden Material	
None	.....	Forbidden Explosives	
Class 1 (Explosive)			
<i>An explosive is any substance or article - including a device - which is designed to function by explosion (i.e. an extremely rapid release of gas and heat), or which - by chemical reaction within itself - is able to function in a similar manner even if not designed to function by explosion, unless the substance or article is otherwise classed.</i>			
1	1.1	Explosives (with a mass explosion hazard)	Explosives that have a mass explosion hazard. A mass explosion is one which affects almost the entire load
1	1.2	Explosives (with a projection hazard)	Explosives that have a projection hazard, but not a mass explosion hazard.
1	1.3	Explosives (with predominantly a fire hazard)	Explosives that have a fire hazard and either a minor blast hazard, a minor projection hazard, or both - but not a mass explosion hazard.
1	1.4	Explosives (with no significant blast hazard)	Explosives that present a minor explosion hazard. The explosive effects are largely confined to the package, and no projection of fragments of appreciable size or range is to be expected. An external fire must not cause virtually instantaneous explosion of almost the entire contents of the package.
1	1.5	Very insensitive explosives; blasting agents	Insensitive explosives which have a mass explosion hazard, but are so insensitive that there is very little probability of initiation, or of transition from burning to detonation, under normal conditions of transport. (Note: The probability of transition from burning to detonation is greater when large quantities are transported in a vessel.)
1	1.6	Extremely insensitive detonating substances	Extremely insensitive explosives which do not have a mass explosion hazard. This division is comprised of articles which contain only extremely insensitive detonating substances and which demonstrate a negligible probability of accidental initiation or propagation. (Note: The risk from articles of Division 1.6 is limited to the explosion of a single article.)



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Class 2 (Gas)			
2	2.1	Flammable gas	<p>Any material which is a gas at 20 degrees C (68 degrees F) or less and 101.3 kPa (14.7 psi) of pressure, which:</p> <p>*Is ignitable at 101.3 kPa (14.7 psi) when in a mixture of 13 percent or less by volume with air, or</p> <p>*Has a flammable range at 101.3 kPa (14.7 psi) with air of at least 12 percent, regardless of the lower limit.</p> <p>Except for aerosols, the limits specified are to be determined at 101.3 kPa (14.7 psi) of pressure and a temperature of 20 degrees C (68 degrees F) in accordance with ASTM E681-85, Standard Test Method for Concentration Limits of Flammability of Chemicals or other equivalent method approved by the Associate Administrator for Hazardous Materials Safety. The flammability of aerosols is determined by the tests specified in Section 173.306(i).</p>
2	2.2	Non-flammable compressed gas	<p>This division includes non-flammable, non-poisonous compressed gas including compressed gas, liquefied gas, pressurized cryogenic gas, compressed gas in solution, asphyxiant gas and oxidizing gas which:</p> <p>**Exerts in the packaging an absolute pressure of 280 kPa (41 psia) or greater at 20 degrees C (68 degrees F), and</p> <p>**Does not meet the definition of Division 2.1 and 2.3.</p>
2	2.3	Poisonous gas	<p>A gas poisonous by inhalation means a material which is a gas at 20 degrees C (68 degrees F) or less and a pressure of 101.3 kPa (14.7 psi) and which:</p> <p>**Is known to be so toxic to humans as to pose a hazard to health during transportation, or</p> <p>**In the absence of adequate data on human toxicity, is presumed to be toxic to humans because when tested on laboratory animals has an LC50 (Lethal Concentration) value of not more than 5000 milliliters per cubic meter. See Section 173.116(a) for assignment of Hazard Zones A, B, C, or D. LC50 values for mixtures may be determined using the formula in Section 173.133(b)(1)(i).</p>

Class 3 (Flammable & Combustible Liquid)			
3	.....	Flammable and combustible liquid	<p>A liquid having a flash point of not more than 60 degrees C (140 degrees F), or any material in a liquid phase with a flash point at or above 37.8 degrees C (100 degrees F) that is intentionally heated and offered for transportation, or transported at or above its flash point in a bulk packaging, with the following exceptions:</p> <p>**Any liquid meeting one of the definitions of a Class 2 (Gas) material.</p> <p>**Any mixture having one or more components with a flash point of 60 degrees C (140 degrees F) or higher, that makes up at least 99 percent of the total volume of the mixture, if the mixture is not offered for transportation or transported at or above its flash point.</p> <p>**Any liquid with a flash point greater than 35 degrees C (95 degrees F) which does not sustain combustion according to ASTM 4206 or the procedure in Appendix H of Part 173.</p> <p>**Any liquid with a flash point greater than 35 degrees C (95 degrees F) and with a fire point greater than 100 degrees C (212 degrees F) according to ISO 2592.</p> <p>**Any liquid with a flash point greater than 35 degrees C (95 degrees F) which is in a water-miscible solution with a water content of more than 90 percent by mass.</p>

Class 4 (Flammable Solid)

4	4.1	Flammable solid	<p>**Desensitized explosives that, when dry, are explosives of Class 1 - other than those of compatibility group A - which are wetted with sufficient water, alcohol, or plasticizer to suppress explosive properties, and materials specifically authorized by name in the Hazardous Materials Table or have been specifically authorized by name either in the Section 172.101 Hazardous Materials Table or have been assigned a shipping name and hazard class by the Associate Administrator for Hazardous Materials Safety.</p> <p>**Self-reactive materials that are thermally unstable and that can undergo a strongly exothermal decomposition even without oxygen (air).</p> <p>**Readily combustible solids which may cause fire through friction, show a burning rate faster than 2.2 mm (0.087 inch) per second when tested in accordance with UN Manual of Tests and Criteria, or any metal powders that can be ignited and react over the whole length of a sample in 10 minutes or less when tested in accordance with UN Manual of Tests and Criteria.</p>
4	4.2	Spontaneously combustible material	<p>Any material of the following two types:</p> <p>**A pyrophoric material that - even in small quantities and without an external ignition source - can ignite within 5 minutes after coming in contact with air when tested according to the UN Manual of Tests and Criteria.</p> <p>**A self-heating material that - when in contact with air and without an energy supply - is liable to self-heat; exhibits spontaneous ignition; or if the temperature of the sample exceeds 200 degrees C (392 degrees F) when tested in accordance with UN Manual of Tests and Criteria.</p>
4	4.3	Dangerous when wet material	<p>A material which by contact with water:</p> <p>**Is liable to become spontaneously flammable.</p> <p>**Gives off flammable or toxic gas at a rate greater than 1 liter per kilogram of material, per hour, when tested in accordance with UN Manual of Tests and Criteria.</p>

Class 5 (Oxidizer & Organic Peroxide)			
5	5.1	Oxidizer	<p>A material that may, generally by yielding oxygen, cause or enhance the combustion of other materials.</p> <ol style="list-style-type: none"> 1. A solid material is classed as a Division 5.1 material if, when tested in accordance with UN Manual of Tests and Criteria, its mean burning time is less than or equal to the burning time of a 3:7 potassium bromate/cellulose mixture. 2. A liquid material is classed as a Division 5.1 material if, when tested in accordance with UN Manual of Tests and Criteria, it spontaneously ignites or its mean time for a pressure rise from 690 kPa to 2070 kPa gauge is less than the time of a 1:1 nitric acid (65 percent)/cellulose mixture.
5	5.2	Organic peroxide	<p>Any organic compound containing oxygen (O) in the bivalent -O-O- structure and which may be considered a derivative of hydrogen peroxide, where one or more of the hydrogen atoms have been replaced by organic radicals, unless:</p> <ol style="list-style-type: none"> 1. The material meets the definition of an explosive according to Subpart C of Part 173, in which case it must be classed an explosive. 2. The material is forbidden from being offered for transportation according to the Section 172.101 Hazardous Materials Table or Section 173.21. 3. The Associate Administrator for Hazardous Materials Safety has determined that the material does not present a hazard which is associated with a Division 5.2 material. 4. The material meets the restriction specified for available oxygen as calculated using the formula in Section 173.128(a)(4)(ii).

Class 6 (Poisonous Material & Infectious Substance)			
6	6.1	Poisonous materials	<p>A material, other than a gas, which is known to be so toxic to humans as to afford a hazard to health during transportation, or which, in the absence of adequate data on human toxicity: **Is presumed to be toxic to humans because it falls within specified oral, dermal, or inhalation toxicity ranges when tested on laboratory animals.</p> <p>**Is an irritating material, with properties similar to tear gas, which cause extreme irritation - especially in confined spaces.</p>
6	6.2	Infectious substance (Etiologic agent)	<p>A viable microorganism, or its toxin, which causes or may cause disease in humans or animals - including those agents listed in 42 CFR 72.3 (the regulations of the Department of Health and Human Services) or any other agent that causes or may cause severe, disabling, or fatal disease. (Infectious substance and etiologic agent are synonymous.)</p>
Class 7 (Radioactive Material)			
7	.....	Radioactive material	<p>Any material having a specific activity greater than 0.002 microcuries per gram. For more information on classification criteria for Class 7, consult Subpart I of Part 173.</p>
Class 8 (Corrosive Material)			
8	.....	Corrosive material	<p>**A liquid or solid that causes full thickness destruction of human skin at the site of contact within a specified period of time.</p> <p>**A liquid that has a severe corrosion rate on steel or aluminum based on the criteria in Section 173.137(c)(2).</p>
Class 9 (Miscellaneous)			
9	.....	Miscellaneous hazardous material	<p>A material which presents a hazard during transportation, but which does not meet the definition of any other hazard class. This includes:</p> <p>**Any material which has an anesthetic, noxious, or other similar property which could cause extreme annoyance or discomfort to a member of a flight crew so as to prevent the correct performance of assigned duties; or</p> <p>**Any material that meets the definition in Section 171.8 for an elevated temperature material, a hazardous substance, a hazardous waste, or a marine pollutant.</p>
None	.....	Other regulated material: ORM-D	<p>ORM-D means a material, such as a consumer commodity, which although otherwise subject to the regulations, presents a limited hazard during transportation due to its form, quantity, and packaging. It must be a material for which exceptions are provided in the Hazardous Materials Table.</p>