



Classification of hazardous substances

ADR Chapter 2:

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ADR 2009 Section	Class of substance	Definition of class of substance
2.2.1.	1.	Explosive substances and articles containing explosive substances
	1.1	Substances and articles which have a mass explosion hazard. (A mass explosion is an explosion which affects almost the entire load virtually instantaneously.)
	1.2	Substances and articles which have a hazard in the form of splinters and projectiles but not a mass explosion hazard.
	1.3	Substances and articles which have a fire hazard and either a minor blast hazard or a minor hazard in the form of splinters and projectiles or both, but not a mass explosion hazard,
		a) combustion of which gives rise to considerable radiant heat or
		b) which burn one after another, producing minor blast or effects in the form of splinters and projectiles effects or both.
	1.4	Substances and articles which present only a slight risk of explosion in the event of ignition or initiation during carriage. The effects are largely confined to the package and no projection of fragments of appreciable size or range is to be expected. An external fire shall not cause virtually instantaneous explosion of almost the entire contents of the package.
	1.5	Very insensitive substances having a mass explosion hazard which are so insensitive that there is very little probability of ignition or transition from ignition to a detonation under normal conditions of carriage. The minimum requirement for these substances is that they shall not explode in the external fire test.
	1.6	Extremely insensitive articles which do not have a mass explosion hazard. The articles contain only extremely insensitive detonating substances and demonstrate a negligible probability of accidental initiation or propagation.
2.2.2.	2.	Gases
	2.1	Non-liquefied compressed gas: a gas, which when packaged under pressure for transportation is entirely gaseous at -50°C; this category includes all gases with a critical temperature of less than or equal to -50°C.
	2.2	Liquefied compressed gas: a gas, which when packaged under pressure for transportation is partially liquid at temperatures above -50°C. A distinction is made between
		a high-pressure liquefied gas, which is a gas having a critical temperature above -50°C to maximum +65°C, and
		a high-pressure liquefied gas, which is a gas having a critical temperature above +65°C.
	2.3	Refrigerated liquefied gas: gas, which when packaged for transportation, is partially liquid due to its low temperature.
	2.4	Compressed gas in solution: a gas, which when packaged under pressure for transportation in a solvent is dissolved in a liquid phase solvent.
	2.5	Aerosol dispensers and receptacles, small, containing gas (gas cartridges)
	2.6	Other articles containing gas under pressure
	2.7	Non-pressurised gases subject to special requirements (gas samples)
2.2.3.	3.	Flammable liquids
	3.1	Non-toxic and non-caustic substances having a flash-point above 35°C, which do not sustain combustion according to the criteria of sub-section 32.5.2 of Part III of the Manual of Tests and Criteria are not substances of Class 3; if, however, these substances are handed over for carriage and carried whilst heated to temperatures equal to or higher than their flash-point, they are substances of Class 3.
	3.2	By derogation from Paragraph 2.2.3.1.1, diesel fuel, gas oil or heating oil (light) with a flash-point above 60°C and not more than 100°C shall be deemed substances of Class 3, UN Number 1202.



	3.3	Liquids which are highly toxic on inhalation with a flash-point below 23°C and toxic substances having a flash-point of 23°C or above are substances of Class 6.1 (see sub-section 2.2.61.1).
	3.4	Flammable liquid substances and preparations used as pesticides, which are highly toxic or toxic and have a flash-point of 23°C or above are substances of Class 6.1 (see sub-section 2.2.61.1).
2.2.4.	4.	
	4.1	Flammable solid substances, spontaneously decomposing substances and solid desensitised explosives
	4.2	Substances liable to spontaneous combustion
	4.3	Substances which, in contact with water, emit flammable gases
2.2.5.	5.	
	5.1.	Oxidising substances
	5.2	Organic peroxides
2.2.6.	6.	
	6.1	Toxic substances
	6.2	Infectious substances
2.2.7.	7	Radioactive material
2.2.8.	8	Caustic substances
2.2.9.	9	Miscellaneous dangerous substances and articles