HS619

The Nine Classes of Dangerous Goods

1 Class 1 Explosives **1.1** *e.g. Tri Nitro Toluene (TNT)* **1.2** *e.g. ammunition* **1.3** *e.g. propellant powder, fireworks* **1.4** *present no significant hazard* **1.5** *insensitive substances with mass explosion hazard* **1.6** *extremely insensitive articles – no mass explosion hazard*	
2 Class 2.1 Flammable Gas e.g. Hydrogen, Acetylene, Propane	
3 Class 2.2 Non flammable, Non-toxic gas e.g. Nitrogen, Helium, Carbon Dioxide	
Class 2.2 with Subsidiary Risk 5.1 e.g. Oxygen	
Class 2.3 Toxic Gas e.g. Chlorine, Hydrogen Sulphide, Carbon Monoxide, Sulphur Dioxide, Silane, Germane	

Class 3 Flammable liquid
 	
Packing Group 1 (greatest danger) e.g.
    ➢ Carbon disulphide, Diethyl ether
Packing Group 2
    ➢ Acetone, Methanol, Ethanol
Packing Group 3
    ➢ Xylene, Chloroform, Dichloromethane	

4 Class 4 Flammable Solids **4.1 Flammable solids** readily combustible and may cause fire due to friction e.g. magnesium metal, alkali metals	
4.2 Substances liable to Spontaneous Combustion e.g. white phosphorous and potassium metal	
4.3 Substance that in contact with water emit flammable gases which can form explosive mixtures in air e.g. white phosphorous, calcium carbide, magnesium, lithium, sodium	
5 Class 5.1 Oxidising Substances Oxidising substances are not necessarily combustible may readily liberate Oxygen and increase the violence of a fire e.g. Calcium hypochlorite, ammonium nitrate	
6 Class 5.2 Organic Peroxides Materials that may be liable to explosive decomposition may burn rapidly and are sensitive to impact or friction. e.g. dibenzoyl peroxide	

7 Class 6.1 Toxic Substances Also divided into 3 packing groups: Packing group 1 (greatest danger, Packing group 2 and Packing group 3) e.g. Ethidium bromide, benzene, mercury, pesticides, arsenic	
8 Class 6.2 Infectious Substances e.g. vaccines, pathology specimens	
9 Class 7 Radioactive substances	
10 Class 8 Corrosive Substances e.g. Hydrochloric acid, Sulphuric acid, Hydrofluoric acid, Sodium Hydroxide, Amines	
11 Class 9 Miscellaneous Non-specific classification includes substances that have potentially dangerous properties that are relatively minor or are not covered by other classes e.g. polychlorinated biphenyls, lithium batteries	