THE 9 CLASSES OF DANGEROUS GOODS

Classification of dangerous goods is broken down into nine classes according to the type of danger materials or items present. The classes are as follows:

CLASS 1 – EXPLOSIVES

Commonly Transported Explosives:

1. Ammunition/cartridges
2. Fireworks/pyrotechnics
3. Flares
4. Blasting caps / detonators
5. Fuse
6. Primers
7. Explosive charges (blasting, demolition etc)
8. Detonating cord
9. Air bag inflators
10. Igniters
11. Rockets
12. TNT / TNT compositions
13. RDX / RDX compositions
14. PETN / PETN compositions

CLASS 2 – GASES

Commonly Transported Gases:

1. Aerosols
2. Compressed air
3. Hydrocarbon gas-powered devices
4. Fire extinguishers
5. Gas cartridges
6. Fertilizer ammoniating solution

7. Insecticide gases
8. Refrigerant gases
9. Lighters
10. Acetylene / Oxyacetylene
11. Carbon dioxide
12. Helium / helium compounds
13. Hydrogen / hydrogen compounds
14. Oxygen / oxygen compounds
15. Nitrogen / nitrogen compounds
16. Natural gas
17. Oil gas
18. Petroleum gases
19. Butane
20. Propane
21. Ethane
22. Methane
23. Dimethyl ether
24. Propene / propylene
25. Ethylene

CLASS 3 – FLAMMABLE LIQUIDS

Commonly Transported Flammable Liquids:

1. Acetone / acetone oils
2. Adhesives
3. Paints / lacquers / varnishes
4. Alcohols
5. Perfumery products
6. Gasoline / Petrol
7. Diesel fuel
8. Aviation fuel
9. Liquid bio-fuels
10. Coal tar / coal tar distillates
11. Petroleum crude oil

12. Petroleum distillates
13. Gas oil
14. Shale oil
15. Heating oil
16. Kerosene
17. Resins
18. Tars
19. Turpentine
20. Carbamate insecticides
21. Organochlorine pesticides
22. Organophosphorus pesticides
23. Copper based pesticides
24. Esters
25. Ethers
26. Ethanol
27. Benzene
28. Butanols
29. Dichloropropenes
30. Diethyl ether
31. Isobutanols
32. Isopropyls
33. Methanol
34. Octanes

CLASS 4 – FLAMMABLE SOLIDS; SUBSTANCES LIABLE TO SPONTANEOUS COMBUSTION; SUBSTANCES WHICH EMIT FLAMMABLE GASES WHEN IN CONTACT WITH WATER

Commonly Transported Flammable Solids; Spontaneous Combustibles; 'Dangerous When Wet' Materials:

1. Alkali metals
2. Metal powders
3. Aluminium phosphide
4. Sodium batteries

5. Sodium cells
6. Firelighters
7. Matches
8. Calcium carbide
9. Camphor
10. Carbon
11. Activated carbon
12. Celluloid
13. Cerium
14. Copra
15. Seed cake
16. Oily cotton waste
17. Desensitized explosives
18. Oily fabrics
19. Oily fibres
20. Ferrocerium
21. Iron oxide (spent
22. Iron sponge/direct-reduced iron (spent)
23. Metaldehyde
24. Naphthalene
25. Nitrocellulose
26. Phosphorus
27. Sulphur

CLASS 5 – OXIDIZING SUBSTANCES; ORGANIC PEROXIDES

Commonly Transported Oxidizers; Organic Peroxides:

1. Chemical oxygen generators
2. Ammonium nitrate fertilizers
3. Chlorates
4. Nitrates
5. Nitrites
6. Perchlorates
7. Permanganates

8. Persulphates
9. Aluminium nitrate
10. Ammonium dichromate
11. Ammonium nitrate
12. Ammonium persulphate
13. Calcium hypochlorite
14. Calcium nitrate
15. Calcium peroxide
16. Hydrogen peroxide
17. Magnesium peroxide
18. Lead nitrate
19. Lithium hypochlorite
20. Potassium chlorate
21. Potassium nitrate
22. Potassium chlorate
23. Potassium perchlorate
24. Potassium permanganate
25. Sodium nitrate
26. Sodium persulphate

CLASS 6 – TOXIC SUBSTANCES; INFECTIOUS SUBSTANCES

Commonly Transported Toxic Substances; Infectious Substances:

1. Medical/Biomedical waste
2. Clinical waste
3. Biological cultures / samples / specimens
4. Medical cultures / samples / specimens
5. Tear gas substances
6. Motor fuel anti-knock mixture
7. Dyes
8. Carbamate pesticides
9. Alkaloids
10. Allyls
11. Acids

12. Arsenates
13. Arsenites
14. Cyanides
15. Thiols/mercaptans
16. Cresols
17. Barium compounds
18. Arsenics / arsenic compounds
19. Beryllium/ beryllium compounds
20. Lead compounds
21. Mercury compounds
22. Nicotine / nicotine compounds
23. Selenium compounds
24. Antimony
25. Ammonium metavanadate
26. Adiponitrile
27. Chloroform
28. Dichloromethane
29. Hexachlorophene
30. Phenol
31. Resorcinol

CLASS 7 – RADIOACTIVE MATERIAL

Commonly Transported Radioactive Material:

1. Radioactive ores
2. Medical isotopes
3. Yellowcake
4. Density gauges
5. Mixed fission products
6. Surface contaminated objects
7. Caesium radionuclides / isotopes
8. Iridium radionuclides / isotopes
9. Americium radionuclides / isotopes
10. Plutonium radionuclides / isotopes
11. Radium radionuclides / isotopes
12. Thorium radionuclides / isotopes

13. Uranium radionuclides / isotopes
14. Depleted uranium / depleted uranium products
15. Uranium hexafluoride
16. Enriched Uranium

CLASS 8 – CORROSIVES

Commonly Transported Corrosives:

1. Acids/acid solutions
2. Batteries
3. Battery fluid
4. Fuel cell cartridges
5. Dyes
6. Fire extinguisher charges
7. Formaldehyde
8. Flux
9. Paints
10. Alkylphenols
11. Amines
12. Polyamines
13. Sulphides
14. Polysulphides
15. Chlorides
16. Chlorosilanes
17. Bromine
18. Cyclohexylamine
19. Phenol / carbolic acid
20. Hydrofluoric acid
21. Hydrochloric acid
22. Sulfuric acid
23. Nitric acid
24. Sludge acid
25. Hydrogen fluoride
26. Iodine
27. Morpholine

CLASS 9 – MISCELLANEOUS DANGEROUS GOODS

Commonly Transported Miscellaneous Dangerous Goods:

1. Dry ice / cardice / solid carbon dioxide
2. Expandable polymeric beads / polystyrene beads
3. Ammonium nitrate fertilizers
4. Blue asbestos / crocidolite
5. Lithium ion batteries (found in most Personal Electronic Devises) watches, mobile phones, Tablets etc)
6. Lithium metal batteries
7. Battery powered equipment
8. Battery powered vehicles
9. Fuel cell engines
10. Internal combustion engines
11. Vehicles
12. Magnetized material
13. Dangerous goods in apparatus
14. Dangerous goods in machinery
15. Genetically modified organisms
16. Genetically modified micro-organisms
17. Chemical kits
18. First aid kits
19. Life saving appliances
20. Air bag modules
21. Seatbelt pretensioners
22. Plastics moulding compound
23. Castor bean plant products
24. Polychlorinated biphenyls
25. Polychlorinated terphenyls
26. Dibromodifluoromethane
27. Benzaldehyde