

Segregation of Dangerous Goods in Laboratories



Dangerous goods Class

		1	2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6	7	8	9
Class 1	Explosives	Y	N	N	N	N	N	N	N	N	N	N	N	N	N
Class 2.1	Flammable gas	N	Y	Y	Y	Y1	N	N	N	N	N	Y	N	Y	Y
Class 2.2	Non-Flammable Non-Toxic gas	N	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y
Class 2.3	Poisonous Gas	N	Y	Y	Y	N	Y	N	Y	N	N	Y	Y	Y	Y
Class 3	Flammable Liquid	N	Y2	Y	N	Y	Y	N	Y	N	N	Y5	N	Y	Y
Class 4.1	Flammable Solid	N	N	Y	Y	Y	Y	N	Y	N	N	Y	N	Y	Y
Class 4.2	Spontaneously Combustible	N	N	N	N	N	N	Y	Y	N	N	Y	N	Y	Y
Class 4.3	Dangerous When Wet	N	N	Y	Y	Y	Y	Y	Y	N	N	Y	N	N	Y
Class 5.1	Oxidizing Agent	N	N	Y	N	N	N	N	N	Y	N	Y1	N	N	Y2
Class 5.2	Organic Peroxide	N	N	N	N	N	N	N	N	N	Y	Y3	N	N	Y2
Class 6	Toxic	N	Y	Y	Y	Y1	Y	Y	Y	Y3	Y3	Y	Y	Y4	Y
Class 7	Radioactive	N	N	Y	Y	N	N	N	N	N	N	Y	Y	Y	Y
Class 8	Corrosives Acids/alkali	N	Y	Y	Y	Y	Y	Y	N	N	N	Y5	N	Y3	Y
Class 9	Misc Dangerous Goods	N	Y	Y	Y	Y	Y	Y	Y	Y2	Y2	Y	Y	Y	Y

Notes-

- O means compatible classes.
- N means incompatible classes.
- 1 N – When Class 6 substance is a fire risk substance.
- 2 N - when Class 9 substance is a fire risk substance.
- 3 N- for strong acids and strong alkalis (both class 8).
- 4 N- if Toxic Substance is a cyanide and Corrosive Substances is an acid.

The table above is adapted from the 6th Edition of the Australian Dangerous Goods Code (ADC). Further information is given in Chapter 7 of the above publication or may be obtained from the Dangerous Goods Authorities.

General Guidelines are-

- Flammable Liquids may be stored with Poisonous and Corrosive substances, but may not be stored with Oxidizing Agents or Spontaneously Combustible Substances.
- Oxidizing Agents may not be transported with any other classes of dangerous goods.

- Toxic Substances may be stored with Flammable Liquids and Solids (except where the liquid is nitromethane but may not be stored with Oxidizing Agents if the Toxic Substance is capable of being ignited and burnt.

- Toxic Substances when cyanides may not be stored with Corrosive Substances if these are acids.

- Corrosive substances may be stored with Poisonous Gases, but may not be stored with Dangerous When Wet Substances or Oxidizing Agent.

-not applicable for non dangerous goods chemicals.

Segregation of incompatible classes of dangerous goods can be achieved by increasing distances between each class or by segregation devices eg. a flame proof cabinet.

This table is not designed for the transportation of bulk or packaged dangerous goods or storage in warehouses. It is designed only as a guide for dangerous good storage in a laboratory. Please consult a professional advisor for information specific to your circumstances.