Separating DG in Transport and Storage

Understanding how to segregate DG items in storage or in transit is important. Knowing what and how to segregate is easier to track at the level of the hazard class instead of individual items. Please see the below table for a breakdown of segregation guidelines.

Class or Division	1.1, 1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3 Zone A	2.3 Zone B	3	4.1	4.2	4.3	5.1	5.2	6.1 Zone A	7	8
Explosives - 1.1 and 1.2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Explosives - 1.3	●	●	●	●	●	●		●	●	●		●	●	●	●	●		●
Explosives - 1.4	●	●	●	●	●	●		●	●	●		●				●		●
Very Insensitive Explosives - 1.5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Extremely Insensitive Explosives - 1.6	●	●	●	●	●													
Flammable Gases - 2.1	●	●	●	●				●	●							●	●	
Non-Toxic, Non-Flammable gases - 2.2	●			●														
Toxic Gas Zone A - 2.3	●	●	●	●		●				●	●	●	●	●	●			●
Toxic Gas Zone B - 2.3	●	●	●	●		●				●	●	●	●	●	●			●
Flammable Liquids - 3	●	●	●	●				●	●					●		●		
Flammable Solids - 4.1	●			●				●	●							●		●
Spontaneously Combustible Materials - 4.2	●	●	●	●				●	●							●		●
Substances which, in contact with water, emit flammable gases - 4.3	●	●		●				●	●							●		●
Oxidizers - 5.1	●	●		●				●	●	●						●		●
Organic Peroxides - 5.2	●	●		●				●	●							●		●

Toxic Liquids PGI Zone A - 6.1	
Radioactive Materials - 7	
Corrosive Liquids - 8	

	May not be loaded, transported, or stored together in the same transport vehicle or storage f Both main hazard risks and subsidiary risks need to be taken into account.
	May not be loaded, transported, or stored together in the same transport vehicle or storage facility **unless separated** from each other by three meters or more. However, Class 8 (corrosi liquids may not be loaded above or adjacent to Class 4 (flammable) or Class 5 (oxidising) mate except that the mixture of contents would not cause a fire or a dangerous evolution of heat c
	Segregation among different Class 1 (explosive) materials is governed by the compatibility ta Exception: ammonium nitrate (UN 1942) and ammonium nitrate fertiliser may be loaded or st with Division 1.1 (Class A explosive) or Division 1.5 (blasting agents) materials.
Blank Cells	The absence of any hazard class or division or a blank space in the table indicates that no restrictions apply.
Notes:	**Hazard Zone** - A "hazard zone" means one of four levels of hazard assigned to gasses - Hazar Zones A through D. Hazard Zones A and B are assigned to liquids that are poisonous by inhal Consult manufacturer or packaging to identify hazard zones. **PGI** - "Poisonous Gas".

Common DG items in Humanitarian Action

Item	Common Issues	Example Item	Pos UN
Batteries	• Depending on battery type, may be banned or have limited capability to transport on commercial aircraft. • Some battery types are refillable, and may leak harming handlers or reacting to nearby objects or substances. • Damaged or swollen batteries are forbidden in air transport.	Lithium ion	UN34 UN34
		Sealed lead acid	UN30 UN28 UN30
		Refillable lead acid	UN27 UN31
		Lithium metal	UN30 UN30

Item	Common Issues	Example Item	Pos UN
Biological Hazards	• Heavily restricted on some forms of transport. • May require specialised documentation. Requires specialised storage.	Blood/medical samples	UN32
		Live infectious substances	UN28 UN29
		Medical waste	UN32
Water Purification	• Some products that contain NaDCC as an active ingredient may count as DG if they contain a sufficiently large percentage, or are shipped in a sufficient size or sufficient quantities (Example: Aquatabs above 1.67 grams per tablet). Always check SDS from the manufacturer before shipping. • Keep away from products bearing the 4.3 hazard label.	HTH Calcium Hypochlorite	UN17 UN22 UN28
		NaDCC	UN24
		Sodium Hypochlorite	UN17
Cleaning Agents	• If packaging is compromised, may irritate or harm persons handling them. • May react to objects and substances stored nearby, causing slow damage or violent energetic reactions. • Shade and good ventilation is necessary. • When a large quantity must be stored or stowed, if possible, separate in smaller storing quantities. • Keep away from products bearing the class 3, division 4.2 hazard labels and in general from any flammable products.	Alcohol bases hand sanitiser	UN19
		Chlorine based cleaning solutions	UN10 UN19
Compressed Gas	• Compressed gas cylinders are considered DG even when completely depressurised or empty when transported by air. • Compressed gas cylinders may rupture, when stored for long periods of time, or in an unsafe manner.	Oxygen	UN10 UN17
		Fire extinguisher	UN10
		Propane	UN19 UN19
Liquid Fuel	• Highly combustible depending on the type. • Fuel is often inappropriately stored in a high temperature or unventilated rooms, or centrally located in a warehouse. • Shade and good ventilation is necessary. • Keep away from substances bearing the division 5.1 hazard label.	Diesel/Gas oil	UN12
		Gasoline/Petrol	UN12
		Kerosene	UN12
		Aviation Fuel/A-1 jet fuel	UN18
Mechanical	• Vehicles and generators can be considered DG for air shipping because they contain fuel or other potentially	Automobiles/Vehicles	UN31 UN31 UN12 UN28
		Engines	UN35 UN35 UN35 UN31
		Generators	UN31

Item	Common Issues	Example Item	Pos UN
Equipment and Fluids	hazardous fluids, all of which usually must be below a minimum level or completely drained before transporting in an air craft or sea shipping container.		
		Oxygen Generator	UN33
		Freezers	UN28 UN31
		Antifreeze	UN30
		Coolants	UN12
Chemical Fertilizers	• May be highly explosive depending on chemical composition. • Storage in high temperature, lowly ventilated areas, or near other reactive substances might cause serious harm.	Multiple	
Building Related Materials	• Require proper declaration and documentation for most forms of transport, and is often highly regulated by air transport	Pesticides	Many
		Sealants	Many
		Paints	UN19 UN12