

ADR, IMDG & IATA DGR Dangerous Goods Safety Code

Technical compliance code governing classification, packaging groups, diamond hazard labeling, and vehicle safety outfitting under road (ADR), maritime (IMDG Code), and air (IATA DGR) jurisdictions.

1. The 9 Core Hazard Classes

Class	Hazard Designation	Packing Group (PG)	Representative Commodities	Placard Symbol
Class 1	Explosive Substances & Articles	Compatibility Groups (1.1 - 1.6)	Flares, detonators, pyrotechnics, cartridges	Exploding bomb
Class 2	Gases (Compressed, Liquefied)	Non-applicable (2.1 Flammable, 2.2 Toxic)	Propane, argon, chlorine gas, liquid oxygen	Flame / Gas cylinder / Skull
Class 3	Flammable Liquids	PG I (High), PG II (Medium), PG III (Low)	Paints, solvents, fuel, adhesives, ethanol	Flame placard
Class 4	Flammable Solids & Water Reactive	PG I, II, III	Sulfur, phosphorus, sodium, aluminum powders	Striped flame / Blue flame
Class 5	Oxidizers & Organic Peroxides	PG I, II, III	Industrial nitrates, hydrogen peroxide	Flame over circle
Class 6	Toxic and Infectious Substances	PG I, II, III / Category A & B Biohazard	Pesticides, sodium cyanide, clinical samples	Skull & crossbones / Biohazard
Class 7	Radioactive Materials	I-White, II-Yellow, III-Yellow Labels	Medical diagnostic isotopes, radiography	Radioactive trefoil
Class 8	Corrosive Substances	PG I, II, III	Sulfuric acid, hydrochloric acid, battery fluid	Corroding metal & hand
Class 9	Miscellaneous Dangerous Goods	PG II, III	Lithium batteries (UN3480), dry ice, asbestos	Black vertical bars & battery

2. Orange Hazard Placards and Kemler Identification Codes

Mounted on front and rear of commercial haulage units, the upper numerical designates hazard severity (Kemler Code) while the lower indicates the substance's chemical identity (UN Number):

- **Doubled Numbers Signify Intensified Danger:** '33' = Highly flammable liquid, '66' = Highly toxic substance.
- **The 'X' Prefix Warning:** Indicates the substance reacts dangerously when in contact with water (e.g. X323).
- **Mandatory Vehicle Equipment:** 12 kg minimum powder extinguishers, wheel chocks, spark-proof torches, eye-wash solution, drain seals, and chemical escape masks.