

Dangerous goods are defined as those goods which meet the criteria of one or more of nine UN hazard classes and, where applicable, to one of three UN Packing Groups according to the provisions of this section.

The nine classes relate to the type of hazard whereas the packing groups relate to the applicable degree of danger within the class.

Hazard Classes

Some hazard classes are further subdivided into hazard divisions due to the wide scope of the class. The nine hazard classes and their divisions are listed below. The order in which they are numbered is for convenience and does not imply a relative degree of danger.



Class 1 — Explosives

- Division 1.1 — Articles and substances having a mass explosion hazard.
- Division 1.2 — Articles and substances having a projection hazard but not a mass explosion hazard.
- Division 1.3 — Articles and substances having a fire hazard, a minor blast hazard and/or a minor projection hazard but not a mass explosion hazard.
- Division 1.4 — Articles and substances presenting no significant hazard.
- Division 1.5 — Very insensitive substances having a mass explosion hazard.
- Division 1.6 — Extremely insensitive articles which do not have a mass explosion hazard.

Class 2 — Gases

- Division 2.1 — Flammable gas.
- Division 2.2 — Non-flammable, non-toxic gas.
- Division 2.3 — Toxic gas.

Class 3 — Flammable Liquids

This class has no sub-divisions.

Class 4 — Flammable Solids; Substances Liable to Spontaneous Combustion; Substances Which, in Contact with Water, Emit Flammable Gases

- Division 4.1 — Flammable solids, self-reactive substances and solid desensitized explosives.
- Division 4.2 — Substances liable to spontaneous combustion.
- Division 4.3 — Substances which, in contact with water, emit flammable gases.

Class 5 — Oxidizing Substances and Organic Peroxides

- Division 5.1 — Oxidizer.
- Division 5.2 — Organic peroxides.

Class 6 — Toxic and Infectious Substances

- Division 6.1 — Toxic substances.
- Division 6.2 — Infectious substances.

Class 7 — Radioactive Material

This class has no sub-divisions.

Class 8 — Corrosives

This class has no sub-divisions.

Class 9 — Miscellaneous Dangerous Goods

This class has no sub-divisions.

Packing Groups

Dangerous goods are assigned to the relevant packing group according to the degree of danger they present:

- Packing Group I — high danger
- Packing Group II — medium danger
- Packing Group III — low danger.

Shipper's Responsibilities

Compliance

A shipper must comply fully with the **IATA Dangerous Goods Regulations** when offering a consignment of dangerous goods for cargo. In addition, shippers must comply with any applicable regulations set forth by the States of origin, transit and destination.

A shipper, offering articles or substances in violation of the regulations, may be in breach of national law and may be subject to legal penalties.

In the regulations, the words “shall” and “must” are used to indicate a mandatory requirement. The words “should” and “may” indicate a preferred requirement and are not binding.

It is the shipper's responsibility to ensure that all of the applicable air transport requirements are met. The items indicated in below are provided as examples and do not include the complete list of all the applicable requirements for air transport.

Specific Responsibilities

Before any package or overpack of dangerous goods is offered for air transport, the shipper must comply with the following specific responsibilities:

- (a) a shipper must provide such information to his employees as will enable them to carry out their responsibilities with regard to the transport of dangerous goods by air;
- (b) the shipper must ensure that the articles or substances are not prohibited for transport by air.
- (c) the articles or substances must be properly identified, classified, packed, marked, labelled, documented and be in the condition for transport in accordance with the regulations;
- (d) before a consignment of dangerous goods is offered for air transport, all relevant persons involved in its preparation must have received training to enable them to carry out their responsibilities. Where a shipper does not have trained staff, the “relevant persons” may be interpreted as applying to those employed to act on the shipper's behalf and undertake the shipper's responsibilities in the preparation of the consignment.
- (e) the dangerous goods are packaged in compliance with all applicable air transport requirements including:
 - inner packaging and the maximum quantity per package limits;
 - appropriate types of packaging according to the packing instructions;
 - other applicable requirements indicated in the packing instructions including:
 - single packagings may be forbidden;
 - only inner and outer packagings indicated in the packing instructions are permitted;
 - inner packaging may need to be packed in intermediate packagings; and
 - certain dangerous goods must be transported in packagings meeting a higher performance level.

- appropriate closure procedures for inner and outer packagings
- the compatibility requirements such as those in the particular packing requirements of the packing instructions
- the absorbent materials requirements; and
- the pressure differential requirement.

Dangerous Goods in Consolidations

Dangerous goods may be consolidated with goods not subject to the regulations. Dangerous goods in consolidations are subject to the acceptance check described. Any delays caused by discrepancies found during the check may result in delay to the complete consolidation.

Dangerous goods in consolidations must be identified, classified, packed, marked, labelled and documented in accordance with the regulations and be free from any indication of damage or leakage.

Packages and overpacks containing dangerous goods must be offered to the operator separately from the goods in the consolidation that are not subject to the regulations.

Dangerous goods in consolidations are not acceptable in unit load devices, unless specifically permitted by the regulations.

A **Shipper's Declaration for Dangerous Goods** is required for each component consignment.

Consolidations containing any "Cargo Aircraft Only" dangerous goods must be shipped on Cargo Aircraft.

Before a consignment is offered to an operator for transport, the shipper, the freight forwarder and the cargo agent must:

- ensure that the dangerous goods are in full compliance with the regulations;
- segregate dangerous goods contained in a consolidation from goods which are not subject to the regulations, and offer them separately;
- ensure that the dangerous goods are not loaded in a unit load device other than those permitted.
- for all consignments, check documents and the exterior of packages for indication of hidden hazards.

