

Subpart B—Loading, Unloading and Handling

§ 175.75 Quantity limitations and cargo location.

- (a) No person may carry on an aircraft a hazardous material except as permitted by this subchapter.
- (b) Except as otherwise provided in this subchapter, no person may carry a hazardous material in the cabin of a passenger-carrying aircraft or on the flight deck of any aircraft, and the hazardous material must be located in a place that is inaccessible to persons other than crew-members. Hazardous materials may be carried in a main deck cargo compartment of a passenger aircraft provided that the compartment is inaccessible to passengers and that it meets all certification requirements for a Class B aircraft cargo compartment in 14 CFR 25.857(b) or for a Class C aircraft cargo compartment in 14 CFR 25.857(c). A package bearing a KEEP AWAY FROM HEAT handling marking must be protected from direct sunshine and stored in a cool and ventilated place, away from sources of heat.
- (c) For each package containing a hazardous material acceptable for carriage aboard passenger-carrying aircraft, no more than 25 kg (55 pounds) net weight of hazardous material may be loaded in an inaccessible manner. Loaded in an inaccessible manner means cargo that is loaded in such a manner that a crew member or other authorized person cannot handle, and when size and weight permit, separate such packages from other cargo during flight. This includes materials loaded in a freight container in an accessible cargo compartment. In addition to the 25 kg limitation above, an additional 75 kg (165 pounds) net weight of Division 2.2 (non-flammable compressed gas) may be loaded in an inaccessible manner. These requirements do not apply to Class 9 and ORM-D materials.
- (d) Each package containing a hazardous material acceptable only for cargo aircraft must be loaded in such a manner that a crew member or other authorized person can access, handle and when size and weight permit, separate such packages from other cargo during flight.
- (e) For cargo aircraft only, the requirements of paragraph (c) and (d) do not apply to the following hazardous materials:
- (1) Class 3—Packing Group III (that do not meet the definition of another hazard class), Division 6.1 (except those also labeled FLAMMABLE), Division 6.2, Class 7, Class 9 or ORM-D;
 - (2) Division 2.2 in that an additional 75 kg (165 pounds) net weight of Division 2.2 material is authorized in inaccessible locations.
 - (3) Packages of hazardous materials transported aboard a cargo aircraft, when other means of transportation are impracticable or not available, in accordance with procedures approved in writing by the FAA Regional or Field Security Office in the region where the operator is located.
 - (4) Packages of hazardous materials carried on small, single pilot, cargo aircraft if:
 - (i) No person is carried on the aircraft other than the pilot, an FAA inspector, the shipper or consignee of the material, a representative of the shipper or consignee so designated in writing, or a person necessary for handling the material;
 - (ii) The pilot is provided with written instructions on the characteristics and proper handling of the materials; and
 - (iii) Whenever a change of pilots occurs while the material is on board, the new pilot is briefed under a hand-to-hand signature service provided by the operator of the aircraft.
- (5) At a minimum, quantity limits and loading instructions in the following Quantity and Loading Tables must be followed to maintain acceptable quantity and loading between packages containing hazardous materials. The Quantity and Loading Tables are as follows:

Section 175.75 Quantity and Loading Tables

Passenger Aircraft

Packages Authorized for Transport Onboard a Passenger Aircraft

In an accessible cargo compartment		
If packages are accessible	If packages are inaccessible	If packages are in a freight container
No limit	25 kg per compartment plus an additional 75 kg of Division 2.2 material. (see Note 1)	25 kg per container plus an additional 75 kg of Division 2.2 material. (see Note 1).
In an inaccessible cargo compartment		
If packages are not in a freight container		If packages are in a freight container
25 kg per compartment plus an additional 75 kg of Division 2.2 material. (see Note 1)		25 kg per compartment plus an additional 75 kg of Division 2.2 material. (see Note 1).

Cargo Only Aircraft

Packages Authorized for Transport Onboard a Passenger Aircraft

In an accessible cargo compartment			
If packages are accessible	If packages are inaccessible	If packages are in a freight container	
No limit	25 kg per compartment plus an additional 75 kg of Division 2.2 material. (see Note 1)	25 kg per container plus an additional 75 kg of Division 2.2 material. (see Note 1).	
In an inaccessible cargo compartment			
If packages are not in a freight container		If packages are in a freight container	
25 kg per compartment plus an additional 75 kg of Division 2.2 material. (see Note 1)		25 kg per compartment plus an additional 75 kg of Division 2.2 material. (see Note 1).	
Packages Only Authorized for Transport Aboard a Cargo Aircraft			
In an accessible cargo compartment			
If packages are accessible	If packages are inaccessible	If packages are in a freight container and are accessible	If packages are in a freight container and are inaccessible
No limit	Forbidden. (see Note 1)	No Limit	Forbidden. (see Note 1).
In an inaccessible cargo compartment			
If packages are not in a freight container		If packages are in a freight container	
Forbidden. (see Note 1)		Forbidden. (see Note 1).	

Note 1:The following materials are not subject to this restriction:

- a. Class 3, PG III (unless the hazardous material meets the definition of another hazard class).
- b. Class 6 (unless also labeled as a flammable liquid).
- c. Class 7 (unless the hazardous material meets the definition of another hazard class).

[71 FR 14604, Mar. 22, 2006, as amended at 72 FR 55693, Oct. 1, 2007]

Editorial Note: The following amendment could not be incorporated into §175.75 because of the inaccurate amendatory instruction. For the convenience of the user the amendatory instruction and text is set forth as follows:

At 71 FR 54395, Sept. 14, 2006, §175.75 was amended in part by revising paragraph (e)(5).

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(e) * * *

(5) At a minimum, quantity limits and loading instructions in the following quantity and loading tables must be followed to maintain acceptable quantity and loading distances between packages containing hazardous materials. These requirements do not apply to Class 9 or ORM-D materials. The quantity and loading tables are as follows:

Section 175.75 Quantity and Loading Tables

Cargo Only Aircraft

[Packages authorized for transport onboard a passenger aircraft]

In an accessible cargo compartment		
If packages are accessible	If packages are inaccessible	If packages are in a Freight Container
No limit	25 kg per compartment plus an additional 75 kg of Division 2.2 material (see Note 1)	25 kg per container plus an additional 75 kg of Division 2.2 material (see Note 1).

In an inaccessible cargo compartment	
If packages are not in a freight container	If packages are in a freight container
25 kg per compartment plus an additional 75 kg of Division 2.2 material	25 kg per compartment plus an additional 75 kg of Division 2.2 material (see Note 1).
	25 kg per compartment plus an additional 75 kg of Division 2.2 material (see Note 1).

Packages Only Authorized for Transport Aboard a Cargo Aircraft

In an accessible cargo compartment			
If packages are accessible	If packages are inaccessible	If packages are in a freight container and are accessible	If packages are in a freight container and are inaccessible
No limit	Forbidden (see Note 1)	No Limit	Forbidden (see Note 1).

In an inaccessible cargo compartment	
If packages are not in a freight container	If packages are in a freight container
Forbidden (see Note 1)	Forbidden (see Note 1).

Note 1: Except the following materials are not subject to this restriction:

- a. Class 3, PG III (unless the hazardous material meets the definition of another hazard class)
- b. Class 6 (unless also labeled as a flammable liquid)
- c. Class 7 (unless the hazardous material meets the definition of another hazard class)

§ 175.78 Stowage compatibility of cargo.

(a) For stowage on an aircraft, in a cargo facility, or in any other area at an airport designated for the stowage of hazardous materials, packages containing hazardous materials which might react dangerously with one another may not be placed next to each other or in a position that would allow a dangerous interaction in the event of leakage.

(b) At a minimum, the segregation instructions prescribed in the following Segregation Table must be followed to maintain acceptable segregation between packages containing hazardous materials with different hazards. The Segregation Table instructions apply whether or not the class or division is the primary or subsidiary risk. The Segregation Table follows:

Segregation Table

Hazard label	Class or division							
	1	2	3	4.2	4.3	5.1	5.2	8
1	Note 1	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
2	Note 2							
3	Note 2					X		
4.2	Note 2					X		
4.3	Note 2							X
5.1	Note 2		X	X				
5.2	Note 2							
8	Note 2					X		

(c) Instructions for using the Segregation Table are as follows:

(1) Hazard labels, classes or divisions not shown in the table are not subject to segregation requirements.

(2) Dots at the intersection of a row and column indicate that no restrictions apply.

(3) The letter “X” at the intersection of a row and column indicates that packages containing these classes of hazardous materials may not be stowed next to or in contact with each other, or in a position which would allow interaction in the event of leakage of the contents.

(4) Note 1. “Note 1” at the intersection of a row and column means the following:

(i) Only Division 1.4, Compatibility Group S, explosives are permitted to be transported aboard a passenger aircraft. Only certain Division 1.3, Compatibility Groups C and G, and Division 1.4, Compatibility Groups B, C, D, E, G and S, explosives may be transported aboard a cargo aircraft.

(ii) Division 1.4 explosives in Compatibility Group S may be stowed with Division 1.3 and 1.4 explosives in compatibility groups as permitted aboard aircraft under paragraph (c)(4)(i) above.

(iii) Except as otherwise provided in this Note, explosives of different compatibility groups may be stowed together whether or not they belong to the same division.

(iv) Division 1.4B and Division 1.3 explosives may not be stowed together. Division 1.4B explosives must be loaded into separate unit load devices and, when stowed aboard the aircraft, the unit load devices must be separated by other cargo with a minimum separation of 2 m (6.5 feet). When not loaded in unit load devices, Division 1.4B and Division 1.3 explosives must be loaded into different, non-adjacent loading positions and separated by other cargo with a minimum separation of 2 m (6.5 feet).

(5) Note 2. "Note 2" at the intersection of a row and column means that other than explosives of Division 1.4, Compatibility Group S, explosives may not be stowed together with that class.

(6) Packages containing hazardous materials with multiple hazards in the class or divisions, which require segregation in accordance with the Segregation Table, need not be segregated from other packages bearing the same UN number.

(7) A package labeled "BLASTING AGENT" may not be stowed next to or in a position that will allow contact with a package of special fireworks or railway torpedoes.

[71 FR 14604, Mar. 22, 2006, as amended at 71 FR 54396, Sept. 14, 2006; 71 FR 78634, Dec. 29, 2006]

§ 175.88 Inspection, orientation and securing packages of hazardous materials.

(a) A unit load device may not be loaded on an aircraft unless the device has been inspected and found to be free from any evidence of leakage from, or damage to, any package containing hazardous materials.

(b) A package containing hazardous materials marked "THIS SIDE UP" or "THIS END UP", or with arrows to indicate the proper orientation of the package, must be stored and loaded aboard an aircraft in accordance with such markings. A package without orientation markings containing liquid hazardous materials must be stored and loaded with top closure facing upward.

(c) Packages containing hazardous materials must be secured in an aircraft in a manner that will prevent any movement in flight which would result in damage to or change in the orientation of the packages. Packages containing Class 7 (radioactive) materials must be secured in a manner that ensures that the separation requirements of §§175.701 and 175.702 will be maintained at all times during flight.

§ 175.90 Damaged shipments.

(a) Packages or overpacks containing hazardous materials must be inspected for damage or leakage after being unloaded from an aircraft. When packages or overpacks containing hazardous materials have been transported in a unit load device, the area where the unit load device was stowed must be inspected for evidence of leakage or contamination immediately upon removal of the unit load device from the aircraft, and the packages or overpacks must be inspected for evidence of damage or leakage when the unit load device is unloaded. In the event of leakage or suspected leakage, the compartment in which the package, overpack, or unit load device was carried must be inspected for contamination and decontaminated, if applicable.

(b) Except as provided in §175.700, the operator of an aircraft must remove from the aircraft any package, baggage or cargo that appears to be leaking or contaminated by a hazardous material. In the case of a package, baggage or cargo that appears to be leaking, the operator must ensure that other packages, baggage or cargo in the same shipment are in proper condition for transport aboard the aircraft and that no other package, baggage or cargo has been contaminated or is leaking. If an operator becomes aware that a package, baggage or cargo not identified as containing a hazardous material has been contaminated, or the operator has cause to believe that a hazardous material may be the cause of the contamination, the operator must take reasonable steps to identify the nature and source of contamination before proceeding with the loading of the contaminated baggage or cargo. If the contaminating substance is found or suspected to be hazardous material, the operator must isolate the package, baggage or cargo and take appropriate steps to eliminate any identified hazard before continuing the transportation of the item by aircraft.

(c) No person may place aboard an aircraft a package, baggage or cargo that is contaminated with a hazardous material or appears to be leaking.

(d) If a package containing a material in Division 6.2 (infectious substance) is found to be damaged or leaking, the person finding the package must:

(1) Avoid handling the package or keep handling to a minimum;

(2) Inspect packages adjacent to the leaking package for contamination and withhold from further transportation any contaminated packages until it is ascertained that they can be safely transported;

(3) Comply with the reporting requirement of §§171.15 and 175.31 of this subchapter; and

(4) Notify the consignor or consignee.