





# HAZARDOUS MATERIALS LOAD AND SEGREGATION CHART

COMPATIBILITY TABLE FOR CLASS 1 (EXPLOSIVE) MATERIALS														CLASS 1 EXPLOSIVE PLACARDS	
COMPATIBILITY GROUP														DIVISIONS 1.1, 1.2 & 1.3	DIVISION 1.4
	A	B	C	D	E	F	G	H	J	K	L	N	S		
A		X	X	X	X	X	X	X	X	X	X	X	X		
B	X		X	X <sup>(4)</sup>	X	X	X	X	X	X	X	X	X	4/5	
C	X	X		2	2	X	6	X	X	X	X	X	3	4/5	
D	X	X <sup>(4)</sup>	2		2	X	6	X	X	X	X	X	3	4/5	
E	X	X	2	2		X	6	X	X	X	X	X	3	4/5	
F	X	X	X	X	X		X	X	X	X	X	X	X	4/5	
G	X	X	6	6	6	X		X	X	X	X	X	X	4/5	
H	X	X	X	X	X	X	X		X	X	X	X	X	4/5	
J	X	X	X	X	X	X	X	X		X	X	X	X	4/5	
K	X	X	X	X	X	X	X	X	X		X	X	X	4/5	
L	X	X	X	X	X	X	X	X	X	X	1	X	X	4/5	
N	X	X	3	3	3	X	X	X	X	X	X		X	4/5	
S	X	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	X	4/5		

**§177.848**

(g) Instructions for using the compatibility table for Class 1 (explosive) materials are as follows:

- (1) A blank space in the Table indicates that no restrictions apply.
- (2) The letter "X" in the Table indicates that explosives of different compatibility groups may not be carried on the same transport vehicle.
- (3) The numbers in the Table mean the following:
  - (i) "1" means an explosive from compatibility group L shall only be carried on the same transport vehicle with an identical explosive.
  - (ii) "2" means any combination of explosives from compatibility groups C, D, or E is assigned to compatibility group E.
  - (iii) "3" means any combination of explosives from compatibility groups C, D, or E with those in compatibility group N is assigned to compatibility group D.
  - (iv) "4" means 'see §177.835(g)' when transporting detonators.
  - (v) "5" means Division 1.4S fireworks may not be loaded on the same transport vehicle with Division 1.1 or 1.2 (explosive) materials.
  - (vi) "6" means explosive articles in compatibility group G, other than fireworks and those requiring special handling, may be loaded, transported and stored with other explosive articles of compatibility groups C, D and E, provided that explosive substances (such as those not contained in articles) are not carried in the same vehicle.
  - (h) Except as provided in paragraph (i) of this section, explosives of the same compatibility group but of different divisions may be transported together provided that the whole shipment is transported as though its entire contents were of the lower numerical division (i.e., Division 1.1 being lower than Division 1.2). For example, a mixed shipment of Division 1.2 (explosive) materials and Division 1.4 (explosive) materials, both of compatibility group D, must be transported as Division 1.2 (explosive) materials.
  - (i) When Division 1.5 materials, compatibility group D, are transported in the same freight container as Division 1.2 (explosive) materials, compatibility group D, the shipment must be transported as Division 1.1 (explosive) materials, compatibility group D.

The Division number and compatibility group are printed in black ink where the \* is shown. Placard any quantity of Division 1.1, 1.2 or 1.3 material.

\* Division Numbers and Compatibility Group

- |      |      |      |
|------|------|------|
| 1.1A | 1.2B | 1.2L |
| 1.1B | 1.2C | 1.3C |
| 1.1C | 1.2D | 1.3F |
| 1.1D | 1.2E | 1.3G |
| 1.1E | 1.2F | 1.3H |
| 1.1F | 1.2G | 1.3J |
| 1.1G | 1.2H | 1.3K |
| 1.1J | 1.2J | 1.3L |
| 1.1L | 1.2K |      |

The compatibility group is printed in black ink, where the \* is shown. Placard 454 kg. (1,001 lbs.) or more of 1.4 Explosives.

\* Compatibility Group

- B  
C  
D  
E  
F  
G  
S

DIVISION 1.5



The compatibility group is D. Placard 454 kg. (1,001 lbs.) or more of 1.5 Blasting Agents.

DIVISION 1.6



The compatibility group is N. Placard 454 kg. (1,001 lbs.) or more of 1.6 Explosives.

**PLACARDS NOT REQUIRED FOR:**

1. Infectious substances (Division 6.2).
2. Combustible liquids in non-bulk packagings.
3. ORM-D materials.
4. Limited quantities when identified on papers.
5. Radioactive (Class 7) I or II labels.
6. Small quantities per §173.4.
7. Excepted quantities per §173.4a.
8. Class 9 materials in domestic transport.
9. Materials prepared per §173.13.



**DANGEROUS PLACARD FOR MIXED LOADS**

Placard 454 kg (1,001 lbs.) gross weight of two or more categories of hazardous materials listed in Table 2. A freight container, unit load device, transport vehicle, or rail car which contains nonbulk packages with two or more categories of hazardous materials that require different placards, as specified in Table 2, may be placarded with a DANGEROUS placard instead of the separate placarding specified for each of the materials in Table 2. However, when 1,000 kg (2,205 pounds) aggregate gross weight or more of one category of material is loaded therein at one loading facility on a freight container, unit load device, transport vehicle, or rail car, the placard specified in Table 2 for that category must be applied.

- Division 1.4  
Division 1.5  
Division 1.6  
Division 2.1  
Division 2.2  
Class 3  
Combustible liquid  
Division 4.1



- Division 4.2  
Division 5.1  
Division 5.2, other than Type B, liquid or solid, temperature controlled  
Division 6.1, other than material poisonous by inhalation  
Class 8  
Class 9

**§172.504(g) COMPATIBILITY GROUP LETTER**

For shipments of Class 1 (explosive materials) by aircraft or vessel, the applicable compatibility group letter must be displayed on the placards, or labels when applicable, required by this section. When more than one compatibility group placard is required for Class 1 materials, only one placard is required to be displayed, as provided in paragraphs (g)(1) through (g)(4) of this section. For the purposes of paragraphs (g)(1) through (g)(4), there is a distinction between the phrases *explosive articles* and *explosive substances*. *Explosive article* means an article containing an explosive substance; examples include a detonator, flare, primer or fuse. *Explosive substance* means a substance contained in a packaging that is not contained in an article; examples include black powder and smokeless powder.

- (1) Explosive articles of compatibility groups C, D or E may be placarded displaying compatibility group E.
- (2) Explosive articles of compatibility groups C, D, or E, when transported with those in compatibility group N, may be placarded displaying compatibility group D.
- (3) Explosive substances of compatibility groups C and D may be placarded displaying compatibility group D.
- (4) Explosive articles of compatibility groups C, D, E or G, except for fireworks, may be placarded displaying compatibility group E.



**§172.505 PLACARDING FOR SUBSIDIARY HAZARDS**

(a) Each transport vehicle, freight container, portable tank, unit load device, or rail car that contains a poisonous material subject to the "Poison Inhalation Hazard" shipping description of §172.203(m) must be placarded with a POISON INHALATION HAZARD or POISON GAS placard, as appropriate, on each side and each end, in addition to any other placard required for that material in §172.504. Duplication of the POISON INHALATION HAZARD or POISON GAS placard is not required.

(b) In addition to the RADIOACTIVE placard which may be required by §172.504(e) of this subpart, each transport vehicle, portable tank or freight container that contains 454 kg (1,001 pounds) or more gross weight of fissile or low specific activity uranium hexafluoride shall be placarded with a CORROSIVE placard on each side and each end.

(c) Each transport vehicle, portable tank, freight container or unit load device that contains a material which has a subsidiary hazard of being dangerous when wet, as defined in §173.124 of this subchapter, shall be placarded with DANGEROUS WHEN WET placards, on each side and each end, in addition to the placards required by §172.504.

(d) Hazardous materials that possess secondary hazards may exhibit subsidiary placards that correspond to the placards described in this part, even when not required by this part (see also §172.519(b)(4) of this subpart).

