

EXPLOSIVES HAZARDS

Fact Sheet No 11: Compatibility Groups (Sheet 1)

Explosives, for the purposes of classification for transport, are assigned to one of six Hazard Divisions depending upon the type of hazard they present and to one of thirteen compatibility groups, which identify the kinds of explosives substances and articles that are deemed to be compatible.

The Hazard Division in combination with the Compatibility Group is known as the Classification Code.

The compatibility groups and the possible Hazard Divisions associated with each compatibility group are as follows:

CLASSIFICATION CODES:

Description of substance or article to be classified	Compatibility Group	Classification Code
Primary explosive substance	A	1.1A
Article containing a primary explosive substance and not containing two or more effective protective features. Some articles, such as detonators for blasting, detonator assemblies for blasting and primers, cap-type, are included, even though they do not contain primary explosives.	B	1.1B, 1.2B, 1.3B
Propellant explosive substance or other deflagrating explosive substance or article containing such explosive substance.	C	1.1C, 1.2C, 1.3C, 1.4C
Secondary detonating explosive or black powder or article containing a secondary detonating explosive substance, in each case without means of initiation and without a propelling charge, or article containing a primary explosive substance and containing two or more effective protective features.	D	1.1D, 1.2D, 1.4D, 1.5D
Article containing a secondary detonating explosives substance without means of initiation, with a propelling charge (other than one containing a flammable liquid or gel or hypergolic liquids).	E	1.1E, 1.2E, 1.4E
Article containing a secondary detonating explosives substance with its own means of initiation, with a propelling charge (other than one containing a flammable liquid or gel or hypergolic liquids) or without a propelling charge.	F	1.1F, 1.2F, 1.3F, 1.4F
Pyrotechnic substance, or article containing a pyrotechnic substance, or article containing both an explosive substance and an illuminating-, incendiary-, tear-, smoke- producing substance (other than a water- activated article or one containing white phosphorus, phosphides, a pyrophoric substance, a flammable liquid or gel, or hypergolic liquids).	G	1.1G, 1.2G, 1.3G, 1.4G
Article containing both an explosive substance and white phosphorus.	H	1.2H, 1.3H
Article containing both an explosive substance and a flammable liquid or gel.	J	1.1J, 1.2J, 1.3J
Article containing both an explosive substance and a toxic chemical agent.	K	1.2K, 1.3K
Explosive substance or article containing a special risk (eg. Due to water activation or presence of hypergolic liquids, phosphides, or a pyrophoric substance) and needs isolation of each type.	L	1.1L, 1.2L, 1.3L
Articles containing only extremely insensitive detonating substances.	N	1.6N
Substance or article so packed or designed that any hazardous effects arising from accidental functioning are confined within the package unless the package has been degraded by fire, in which case all blast or projection effects are limited to the extent that they do not significantly hinder or prohibit fire fighting or other emergency response efforts in the immediate vicinity of package.	S	1.4S

EXPLOSIVES HAZARDS

Fact Sheet No 11: Compatibility Groups (Sheet 2)

For the transport of explosives the Compatibility Groups are used to identify which explosives substances and articles can be transported together and which cannot.

Table 1: EXPLOSIVES THAT CANNOT BE TRANSPORTED TOGETHER:

Explosives...	Cannot be stored with...	Unless
In any one Compatibility Group	Explosives in any other Compatibility Group	It is specifically permitted (see Table 2)
Which are substances in Compatibility Group G	Explosive articles in Compatibility Group G	
In Compatibility Group L	A different type of explosives in the same Compatibility Group	
In compatibility Group A or L	Either each other, or explosives in any other Compatibility Group	
In Compatibility Group H	Explosives in any other Compatibility Group	The other explosives are in Hazard Division 1.4 and Compatibility Group S

Table 2: EXPLOSIVES THAT CAN BE TRANSPORTED TOGETHER:

Compatibility Group										
	B	C	D	E	F	G	H	J	N	S
B			++	++	++					✓
C		✓	✓	✓					✓	✓
D	+	✓	✓	✓					✓	✓
E		✓	✓	✓	✓	✓			✓	✓
F		+	+	✓						✓
G		+	+	✓						✓
H										✓
J										✓
N		✓	✓	✓					✓	✓
S	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓ at the intersection of a row and column indicates that explosives from the relevant Compatibility Groups can be stored together. + at the intersection of a row and column indicates that explosives in that row can be stored with explosive <u>articles only</u> in that column (ie D + B means that explosives of Compatibility Group D can be stored with <u>articles only</u> of Compatibility Group B)										
*	Detonating fuses in Compatibility group B can be carried with articles in D, E, F of which fuses are components.									