

USDOT Hazardous Materials Transportation Placards

These pages provide US DOT (U.S. Department of Transportation) definitions for each hazmat placard used in transportation. Title 49 of the United States Code of Federal Regulations (49CFR) also known as the Federal Motor Carriers Safety Regulations (FMCSR) requires the use hazardous materials placards when shipping hazardous materials cargo and dangerous goods in the United States. Canada, Mexico and many other countries have similar regulations that also require the use of these placards.

Four Digit UN Numbers on Placards

Have you ever wondered what those four digit numbers on the placards on the side of trucks and rail cars mean? UN/NA numbers (the four digit number) found on bulk placards refer to specific chemicals or groups of chemicals and are assigned by the United Nations and/or the United States Department of Transportation. Our online [USDOT 2004 Emergency Response Guidebook](#) will help you find out what the four digit numbers you see on placards mean.

Clipart CD of Placards Available

CDs containing high-resolution "clipart" versions of each hazmat placard can be purchased from us for \$50 U.S. including shipping (via U.S. Mail). This CD now contains the USDOT's hazardous materials transportation training modules as a free bonus. For more information and/or to order the CD, please see our [placarding CD ordering page](#).

Class 1 Explosives - 49CFR 173.50





1.3



1.4



1.5



1.6

Class 2 Compressed Gasses - 49CFR 173.115



2.1



2.2



2.2



2.3

Class 3 Flammable Liquids - 49CFR 173.120



3



3



3



3

Class 4 Flammable Solids - 49CFR 173.124



4.1



4.2



4.3

Class 5 Oxidizers - 49CFR 173.127



5.1



5.2

Class 6 Poisons - 49CFR 173.132



6.1



6.1



6.1



6.1

Class 7 Radioactive Materials- 49CFR Subpart I



7

Class 8 Corrosive Liquids - 49CFR 173.136



8

Class 9 Miscellaneous - 49CFR 173.140



9



9

Other Related Markings



Class 1 Explosives (pg 1 of 2)

49CFR 173.50

Pages:

- ° **Class 1 Explanation: Pg 1 [Pg 2 Listing of Class 1 Materials](#)**

Explosives are any substance or article, including a device, which is designed to function by explosion or which, by chemical reaction within itself is able to function in a similar manner even if not designed to function by explosion (unless the article is otherwise classed under a provision of 49CFR).

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Division 1.1 Explosives

Consists of explosives that have a mass explosion hazard. A mass explosion is one which affects almost the entire load instantaneously.

(* Add [compatibility group](#) [A, B, C, D, E, F, G, J, L])

- **[ERG GUIDE NUMBER: 112](#)**
- **[Listing of Division 1.1 Materials](#)**



Division 1.2 Explosives

Consists of explosives that have a projection hazard but not a mass explosion hazard. (* Add [compatibility group](#) [B, C, D, E, F, G, H, J, K, L])

- **ERG GUIDE NUMBER: 112**
- **Listing of Division 1.2 Materials**



Division 1.3 Explosives

Consists of explosives that have a fire hazard and either a minor blast hazard or a minor projection hazard or, both but not a mass explosion hazard. (* Add [compatibility group](#) [C, F, G, H, J, K, L])

- **ERG GUIDE NUMBER: 112**
- **Listing of Division 1.3 Materials**



Division 1.4 Explosives

Consists of explosives that present a minor explosion hazard. The explosive effects are largely confined to the package and no projection of fragments of appreciable size or range is to be expected. An external fire must not cause virtually instantaneous explosion of almost the entire contents of the package. (* Add [compatibility group](#) [B, C, D, E, F, G, S])

- [ERG GUIDE NUMBER: 114](#)
- [Listing of Division 1.4 Materials](#)



Division 1.5 Blasting Agents

Consists of very insensitive explosives. This division is comprised of substances which have a mass explosion hazard but are so insensitive

that there is very little probability of initiation or of transition from burning to detonation under normal conditions of transport

- **ERG GUIDE NUMBER: 112**
- **Listing of Division 1.5 Materials**



Division 1.6 Explosives

Consists of extremely insensitive articles which do not have a mass explosive hazard. This division is comprised of articles which contain only extremely insensitive detonating substances and which demonstrate a negligible probability of accidental initiation or propagation.

- **ERG GUIDE NUMBER: 112**
- **Listing of Division 1.6 Materials**

*** Compatibility Groups:**

49CFR 173.52

'A' Primary explosive substance ([1.1A](#), [1.2A](#))

'B' 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 contain primary explosives ([1.1B](#), [1.2B](#), [1.4B](#))

'C' Propellant explosive substance or other deflagrating explosive substance or article containing such explosive substance ([1.1C](#), [1.2C](#), [1.3C](#), [1.4C](#))

'D' Secondary detonating explosive substance 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. ([1.1D](#), [1.2D](#), [1.4D](#), [1.5D](#))

'E' Article containing a secondary detonating explosive substance without means of initiation, with a propelling charge (other than one containing flammable liquid, gel or hypergolic liquid) ([1.1E](#), [1.2E](#), [1.4E](#))

'F' Article containing a secondary detonating explosive substance with its means of initiation, with a propelling charge (other than one containing flammable liquid, gel or hypergolic liquid) or without a propelling charge ([1.1F](#), [1.2F](#), [1.3F](#), [1.4F](#))

'G' Pyrotechnic substance or article containing a pyrotechnic substance, or article containing both an explosive substance and an illuminating, incendiary, tear-producing or smoke-producing substance (other than a water-activated article or one containing white phosphorus, phosphide or flammable liquid or gel or hypergolic liquid) ([1.1G](#), [1.2G](#), [1.3G](#), [1.4G](#))

'H' Article containing both an explosive substance and white phosphorus ([1.2H](#), [1.3H](#))

'J' Article containing both an explosive substance and flammable liquid or gel ([1.1J](#), [1.2J](#), [1.3J](#))

'K' Article containing both an explosive substance and a toxic chemical agent ([1.2K](#), [1.3K](#))

'L' Explosive substance or article containing an explosive substance and presenting a special risk (e.g., due to water-activation or presence of hypergolic liquids, phosphides or pyrophoric substances) needing isolation of each type ([1.1L](#), [1.2L](#), [1.3L](#))

'N' Articles containing only extremely insensitive detonating substances ([1.6N](#))

'S' Substance or article so packed or designed that any hazardous effects arising from accidental functioning 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 the package
([1.4S](#))