

Segregation of Dangerous Goods on Rail



This chart is based on Tables 9.1, 9.2 and 9.3 and Section 9.2.4 of ADG7.

Determine what separation is required between two DG loads, or between DG loads and specified vehicles, based on every Class, Division and Sub-Risk of DG in each container or wagon.

Except as indicated, segregation is only required for Placard Loads of DG

| CLASS or DIVISION | 1 | 2.1 | 2.2 | 2.3 | 3 | 4.1 | 4.2 | 4.3 | 5.1 | 5.2 | 6 | 7 | 8 | 9 | Mixed Class Placard Load | Food or Food empties | Fire-risk substances, Combustible liquids | Piercing Hazard | End of Train or Occupied Vehicle |
|-----------------------------------------|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|-----------------|----------------|----------------|----------------|--------------------------|----------------------|-------------------------------------------|-----------------|----------------------------------|
| | R | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | |
| 1 Explosives | R | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 2.1 Flammable gas | 2 | 0 ^j | 0 ^b | 0 | 0 ^a | N ^a | N ^a | N ^a | N ^a | N ^a | 0 | N | 0 | 0 | N | 0 | 0 ^a | 2 | 1 |
| 2.2 Non-flammable non-toxic gas | 2 | 0 ^b | 0 | 0 ^b | 0 ^b | 0 ^b | N | 0 ^b | 0 ^b | N | 0 ^b | 0 ^b | 0 ^b | 0 ^b | N | 0 | 0 ^b | 2 | T |
| 2.3 Toxic gas | 2 | 0 | 0 ^b | 0 | N | 0 | N | 0 | N | N | 0 | 0 | 0 | 0 | N | N ^g | 0 | 2 | T |
| 3 Flammable liquids | 2 | 0 ^a | 0 ^b | N | 0 | 0 | N | 0 | N ^a | N ^a | 0 ^h | N | 0 | 0 | N | 0 | 0 | 2 | T |
| 4.1 Flammable solids | 2 | N ^a | 0 ^b | 0 | 0 | 0 | N | 0 | N | N | 0 | N | 0 | 0 | N | 0 | 0 | 2 | T |
| 4.2 Spontaneously combustible | 2 | N ^a | N | N | N | N | 0 | 0 | N | N | 0 | N | 0 | 0 | N | 0 | 0 | 2 | T |
| 4.3 Dangerous when wet | 2 | N ^a | 0 ^b | 0 | 0 | 0 | 0 | 0 | N | N | 0 | N | N | 0 | N | 0 | 0 | 2 | T |
| 5.1 Oxidizing substances | 2 | N ^a | 0 ^b | N | N ^a | N | N | N | N ^d | N | 0 ^{ck} | N | N | 0 ^c | N | 0 | N | 2 | T |
| 5.2 Organic peroxides | 2 | N ^a | N | N | N ^a | N | N | N | N | 0 | 0 ^c | N | N | 0 ^c | N | 0 | N | 2 | T |
| 6 Toxic or Infectious substances | 2 | 0 | 0 ^b | 0 | 0 ^h | 0 | 0 | 0 | 0 ^{ck} | 0 ^c | 0 | 0 | 0 ^f | 0 | N ^f | N ^g | 0 | 2 | T |
| 7 Radioactive material | 2 | N | 0 ^b | 0 | N | N | N | N | N | N | 0 | R | N | 0 | N | N ^g | 0 | 2 | T |
| 8 Corrosive substances | 2 | 0 | 0 ^b | 0 | 0 | 0 | 0 | N | N | N | 0 ^f | N | 0 ^f | 0 | N ^f | N ^g | 0 | 2 | T |
| 9 Miscellaneous DG | 2 | 0 | 0 ^b | 0 | 0 | 0 | 0 | 0 | 0 ^c | 0 ^c | 0 | 0 | 0 | 0 | N | 0 | 0 | 2 | T |
| Mixed Class Placard Load | 2 | N | N | N | N | N | N | N | N | N | N ^f | N | N ^f | N | N ^f | N ^g | N | 2 | T |

| Key | Separation Required |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0 | Compatible No separation required – unless an exception below applies as indicated by additional letters (e.g. the letters ck in 0^{ck} – In this case, both Exceptions c & k below must be applied) |
| N | Incompatible ♦ Considered segregated if on separate platforms, wells or wagons, or if one or both loads in closed container or van ♦ Separate by at least 6 m if both loads are in transi-flat or curtain-side containers on the same platform or well ♦ Not permitted on same platform or well if one or both loads are in a portable tank or bulk container – unless an exception applies as indicated by an additional letter (e.g. N^a -In this case, see Exception a below) |
| 1 2 15 | Separate these loads by at least 1 , 2 or 15 intervening platforms, wells or rigid wagons, as indicated by number |
| R | Refer to the Explosives or Radioactives Code as applies |
| T | Separate by at least one container, platform or wagon unless the DG is in a tank wagon when 0 applies |

| Exceptions |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a Separate by 1 if both classes include DG in Placardable Units (receptacles > 500 kg or L, –or loads placarded with an EIP) |
| b If the Division 2.2 gas has Sub-Risk 5.1, separate as required for Division 5.1 |
| c N if the Class 6 or 9 is a fire-risk substance |
| d 0 if both loads are of the same UN Number, or if the two Division or Sub-Risk 5.1 substances are known to be compatible |
| e N if the Class 8 in one load is concentrated strong Acid and in the other is concentrated strong Alkali |
| f 0 or N (as indicated) – unless one load includes Cyanide and the other load includes Acid, in which case: ♦ 15 applies if both loads include Placardable Units ♦ 2 applies if neither or only one load has Placardable Units |
| g N for any quantity (not just placard loads) – unless , in the case of Class 8, it is a food ingredient, when 0 applies |
| h N if the Class 3 is UN 1261 Nitromethane |
| j 1 required between tank wagons of Division 2.1 unless special exemption obtained |
| k 1 if the Division 6.1 is UN 3414 Sodium Cyanide Solution and the Division 5.1 is UN 2014, 2015 or 2984 Hydrogen Peroxide |