Transporting Fuel





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This material is meant as a guide to certain parts of the Transportation of Dangerous Goods Regulations and is not meant to be a substitute for them. It is the responsibility of handlers, officers and transporters of dangerous goods to consult the Regulations for the exact requirements.

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Transporting Fuel

Requirements for Transporting Fuel

The following bulletin will provide information regarding the transportation of fuel on vehicles. It will address the exemptions provided by the Transportation of Dangerous Goods (TDG) Regulation concerning flammable liquids such as diesel and gasoline and the means of containment requirements for those products.

There are multiple issues that need to be considered when transporting fuel on vehicles. The size (capacity of means of containment) and the type of dangerous goods that will be transported (Diesel or Gasoline) will both play a factor in what will be required for transporting fuel on a vehicle.

Class 3 Flammable Liquids: General Exemption (Section 1.33 of the TDG Regulations)

Flammable liquids such as diesel and kerosene belong to Class 3, Packing Group III. Part 3 (Documentation), Part 4 (Dangerous Goods Safety Marks), Part 5 (Means of Containment), Part 6 (Training), Part 7 (Emergency Response Assistance Plan), Part 9 (Road) and Part 10 (Rail) do not apply to the handling, offering for transport or transporting of dangerous goods included in Class 3, Flammable Liquids, on a road vehicle, a railway vehicle or a ship on a domestic voyage of the dangerous goods if the dangerous goods:

- (a) Have no subsidiary class;
- (b) Are included in Packing Group III and have a flash point greater than 37.8°C; and
- (c) Are in one or more small means of containment (capacity of 450 Litre (L) or less) designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of the dangerous goods that could endanger public safety.

Section 1.33 applies to diesel fuel (UN1202) but does not apply to gasoline (UN1203) because gasoline's (UN1203) flash point does not meet the requirements of the Section and is lower than 37. 8°C. Therefore, when transporting diesel fuel (UN1202) in means of containment with a capacity of 450 L or less only Part 1 (Interpretation, General Provisions and Special Cases), Part 2 (Classification) and Part 8 (Reporting Requirements) apply.

UN1202, DIESEL FUEL, or UN1203 GASOLINE Exemption (Section 1.35 of the TDG Regulations)

Diesel Fuel (and gasoline) are exempt from Part 3 (Documentation), the UN number requirements in Section 4.15.3 of Part 4 (Dangerous Goods Safety Marks) and Part 6 (Training) if:

- (a) The dangerous goods are in one or more means of containment visible from outside the road vehicle and each of which has displayed on it
 - The label or placard required for the dangerous goods by Part 4, Dangerous Goods Safety Marks; or
 - If a side or end of the means of containment is not visible from outside the road vehicle, the label or placard required for the dangerous goods by Part 4, Dangerous Goods Safety Marks, on a side or end that is visible from outside the road vehicle.
- (b) Each means of containment is secured to the road vehicle so that the required label or at least one of the required placards displayed on it is visible from outside the road vehicle during transport; and
- (c) The total capacity of all the means of containment is less than or equal to 2,000 L.

According to this exemption, the safety marks must be chosen as follows:

- (a) Gasoline in containers with a volume less than or equal to 450 L require a Class 3 dangerous goods label, the UN number "UN 1203" and the shipping name, "GASOLINE"; and
- (b) Gasoline and diesel in containers with a volume greater than 450 L and less than or equal to 2000 L require at least one Class 3 placard, with no UN number, to be visible from outside the road vehicle.

If diesel fuel is transported in a means of containment with a capacity greater than 450 L, the means of containment must fully comply with the Part 5 (Means of Containment) of the TDG Regulations. This means the slip tank must be in a standardized tank and comply with the certification and inspection requirements of those standards.

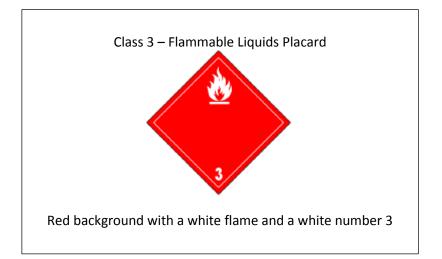
Means of containment transporting gasoline must fully comply with Part 5 (Means of Containment) of the TDG Regulations. This means the slip tank must be in a standardized tank and be periodically inspected and tested.

These requirements are explained later in the bulletin.

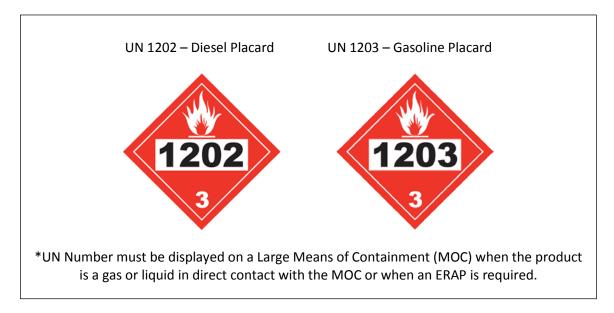
Flammable Liquids in Large Means of Containment

Unless the product can use exemption under Section 1.35 (UN1202, DIESEL FULE or UN1203 GASOLINE Exemption), flammable liquids in large means of containment (capacity greater than 450 L), must fully comply with the TDG Regulations. When the shipment is fully regulation, the container must have four primary class placards and the UN number for the flammable liquid placed on the front, back and each side of the tank and on vehicle if required. The shipment must also be accompanied by a shipping document and the driver of the vehicle must have a valid TDG training certificate.

A list of means of containment inspection facilities can be found at the following Transport Canada website: <u>http://wwwapps.tc.gc.ca/saf-sec-sur/3/fdr-rici/highway/tanks.aspx</u>



Placards for Flammable Liquids



Types of Means of Containment

Small Means of Containment

| PRODUCT | VOLUME | CONTAINER | APPLICABLE STANDARD | ALTERNATE CONTAINER |
|----------|---------------|---|----------------------------------|------------------------|
| DIESEL | 450 L or less | Non-specification | N/A | N/A |
| GASOLINE | 30 L or Less | Non-Specification if conditions for Limited quantity exemption are met | | N/A |
| | 30 L to 60 L | Jerri Can or Drum | TP14850 or CAN/CGSB 43.146 | None |
| | 60 L to 450 L | Drum or UN Standard IBC UN31A or UN31B | CGSB 43.146 | TC57 Tank |

Large Means of Containment

| PRODUCT | VOLUME | CONTAINER | APPLICABLE STANDARD | ALTERNATE CONTAINER |
|----------|------------------------|-------------------|------------------------|------------------------|
| DIESEL | 450 L to 3000 L | UN Standard IBC | CGSB 43.146 | Code 31A and 31B |
| | | Or TC306/406 Tank | CSA B620 | IBC, TC 57 |
| | Greater than 3000 L | TC 306/406 Tank | CSA B620 | N/A |
| GASOLINE | 450 L to 3000 L | UN Standard IBC | CGSB 43.146 | Code 31A and 31B |
| | | Or TC306/406 Tank | CSA B620 | IBC, TC 57 |
| | Greater than 3000 L | TC 306/406 Tank | CSA B620 | N/A |

Summary of Initial Periodic Inspection and Testing

| Type of Means of Containment | Applicable Standard | Initial Inspection and Testing | Periodic Inspection and Testing | |
|--|------------------------|---|---|--|
| UN Standard IBC greater than 450 L | | As manufactured | Internal and external visual testing every 60-months, Appendix C of CGSB 43.146 | |
| Alternate Mobile IBC greater than 450 L | CGSB 43.146 | CGSB 43.146 Appendix C in last 60-months | | |
| Specification Highway Tank | CSA B620 | As manufactured | Clause 8 of CSA B620 Standard (V) External Visual one-year (K) Leak Test one-year (I) Internal Visual five-years (if the tank has a manway) (P) Pressure Test 34.5 kPa (5 psi) five-years | |

Summary

The following is a summary of the requirements when transporting fuel on vehicles. Slip tanks must always be adequately secured and not leaking dangerous goods.

Diesel Fuel (UN1202):

450 L or less:

• No Regulation requirements

451 L to 2000 L:

- Requires at least one Class 3 placard, with no UN number, to be visible
- Required to be in a standardized means of containment
- Required to have valid tank inspections

2001 L and Greater:

- Requires Class 3 Placard, UN number 1202, on all four sides
- Required to be in standardized means of containment
- Required to have valid tank inspections
- Driver must have training certificate and shipping document

Gasoline (UN1203):

30 L to 450 L:

- Require a Class 3 hazard label, the UN number "UN 1203" and the shipping name, "GASOLINE
- Required to be in standardized means of containment

451 L to 2000 L:

- Requires at least one Class 3 placard, with no UN number, to be visible
- Required to be in a standardized means of containment
- Required to have valid tank inspections

2001 L and Greater:

- Requires Class 3 Placard, UN number 1203, on all four sides
- Required to be in standardized means of containment
- Required to have valid tank inspections



• Driver must have training certificate and shipping document

*450 L is equal to 99 imperial gallons

A list of training providers can be found at the following Transport Canada website:

http://wwwapps.tc.gc.ca/saf-sec-sur/3/train-form/search-eng.aspx