

SUSTAINABLE & SMART
MOBILITY STRATEGY



Transport of dangerous goods

C.2 Road Safety
Directorate General for Mobility and Transport
European Commission

● Presentation

- TDG – Historical context
- Legislative background of TDG
- TDG in law context
- Agreements and organisations involved
- What is there in the rules?
- Directive 2008/68/EC on inland transport of dangerous goods
- Council Directive 95/50/EC on uniform procedures for checks on the transport of dangerous goods by road
- Directive 2010/35/EU of the European Parliament and of the Council of 16 June 2010 on transportable pressure equipment



- Transport of dangerous goods - Historical context
 - The development of rules on the transport of dangerous goods started in an international context:
 - For rail transport at *Intergovernmental Organisation for International Carriage by Rail* (OTIF), Appendix C TO COTIF ([RID](#))
 - For road transport at *United Nations Economic Commission for Europe* (UNECE), *Agreement Concerning the International Carriage of Dangerous Goods by Road* ([ADR](#))
 - For inland waterways at waterway specific organisations, such as the *Central Commission for the Navigation of the Rhine* (CCNR), but since 2000 unified at UNECE as the [ADN](#) agreement; and
 - At IMO for maritime transport and at ICAO for air transport

- **Legislative background of transport of dangerous goods (i)**
 - **Following the accident of the vessel Mont Louis in 1984 the European Parliament requested action on the transport of dangerous and radioactive substances and wastes; no EU legislation existed at that time for the sector**
 - **Commission report COM(87) 182 concluded in particular that:**
 - various and incompatible combinations of national and international rules were applied in Member States for national transport
 - the rules annexed to international agreements had already been developed to such an extent that creating parallel EU rules would not have been feasible nor compatible
 - the Commission recommended to apply the relevant international agreements in the EU and to coordinate Member States positions in the relevant international bodies

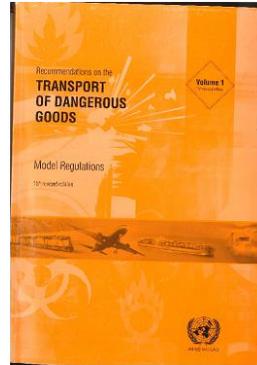
- Legislative background of transport of dangerous goods (ii)
 - In mid-90's to enhance the internal market the EU decided therefore to extend the international rules concerning road and rail into general application in the EU by two directives
 - There were also two further directives regarding compulsory *Dangerous Goods Safety Advisers (DGSA)* and their training – identical provisions have been adopted afterwards in the international agreements
 - In 2008, a new framework Directive 2008/68/EC repealed the four Directives above and extended the approach to transport of dangerous goods on inland waterways

● Dangerous goods transport in law context

Committee of Experts on the Transport of Dangerous Goods

- Established within the United Nations Economic and Social Council (ECOSOC) in the 1950s
- Cooperation of experts view to drafting of the UN Recommendations on the Transport of Dangerous Goods - Model Regulations
 - First version – 1956
 - Soft law instrument to be incorporated into international agreements and national legislation

● **Agreements and organisations involved
context**



**UN Model
Regulations
(Orange book)**

**IMO
IMDG Code
(Sea)**

**ICAO
Technical
Instructions
(Air)**

**UNECE
ADR
(Road)**

**OTIF
RID
(Rail)**

**UNECE
ADN
(Inland Waterway)**

Directive 2008/68/EC
on the inland transport
of dangerous goods

● Directive 2008/68/EC on inland transport of dangerous goods

Scope

- “This Directive shall apply to the transport of dangerous goods by road, by rail or by inland waterway within or between Member States, including the activities of loading and unloading, the transfer to or from another mode of transport and the stops necessitated by the circumstances of the transport”
- Transport between Member States and third countries
- Takes over the Annexes to the international agreements governing the international transport of dangerous goods by:
 - Annex I.1 - Road – ADR
 - Annex II.1 - Rail – RID
 - Annex III.1 - Inland Waterways – ADN

- **Directive 2008/68/EC on inland transport of dangerous goods**
 - **Allows Member States to apply more stringent provisions, with the exception of construction requirements, concerning the national transport of dangerous goods (Art. 5)**
 - **Provides for a system of derogations (art. 6) from ADR, RID and ADN for national transport of:**
 - Small quantities of certain dangerous goods (Art. 6 (2)(a))
 - Local transport over short distances (Art. 6 (2) (b) (i))
 - Local transport by rail on particular designated routes, forming part of a defined industrial process (Art. 6 (2) (b) (ii))
 - **Is updated every 2nd year, when a new Directive is adopted in order to incorporate in EU law the amendments necessary to adapt the Annexes to technical and scientific progress**
 - ❖ **Latest amendment: *Commission Delegated Directive (EU) 2020/1833***



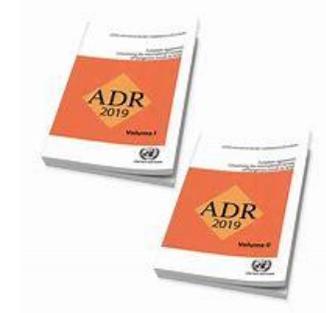
● What is there in the rules?

- **The modal rules have general provisions that are common and specific provisions for the mode of transport, covering such issues as:**



Classification of dangerous goods
Training of personnel
Definition of safety obligations for different actors
Additional special provisions for radioactive materials
Checks and controls of different products

- Anti-terrorism measures
- Classification of goods, including test methods

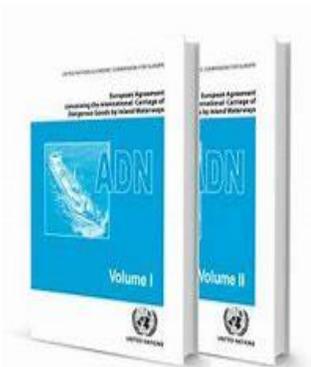


Packaging provisions, covering tanks, gas receptacles, intermediate bulk containers, ... also the construction requirements for such packaging

Provisions for loading, carriage and unloading, including stops during the carriage (parking)

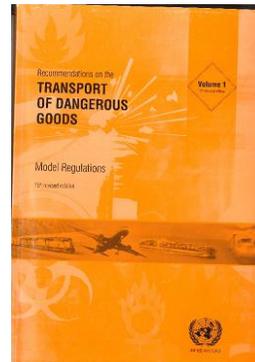
Documentation and certificates

Certain requirements for construction of vehicles



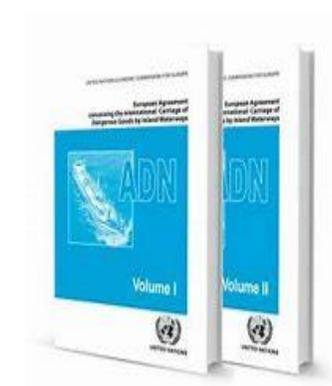
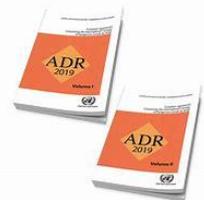
● Classification of dangerous goods

- “Dangerous goods” means those substances and articles the carriage of which is prohibited by ADR/RID/ADN, or authorized only under the conditions prescribed therein
- Their classification is established at the level of the UN Sub-Committee of Experts in the UN Model Regulations for Transport of Dangerous Goods
- The classification is taken over in *all* the international agreements on TDG
 - ADR
 - RID
 - ADN
 - ICAO Technical Instructions
 - IMDG Code

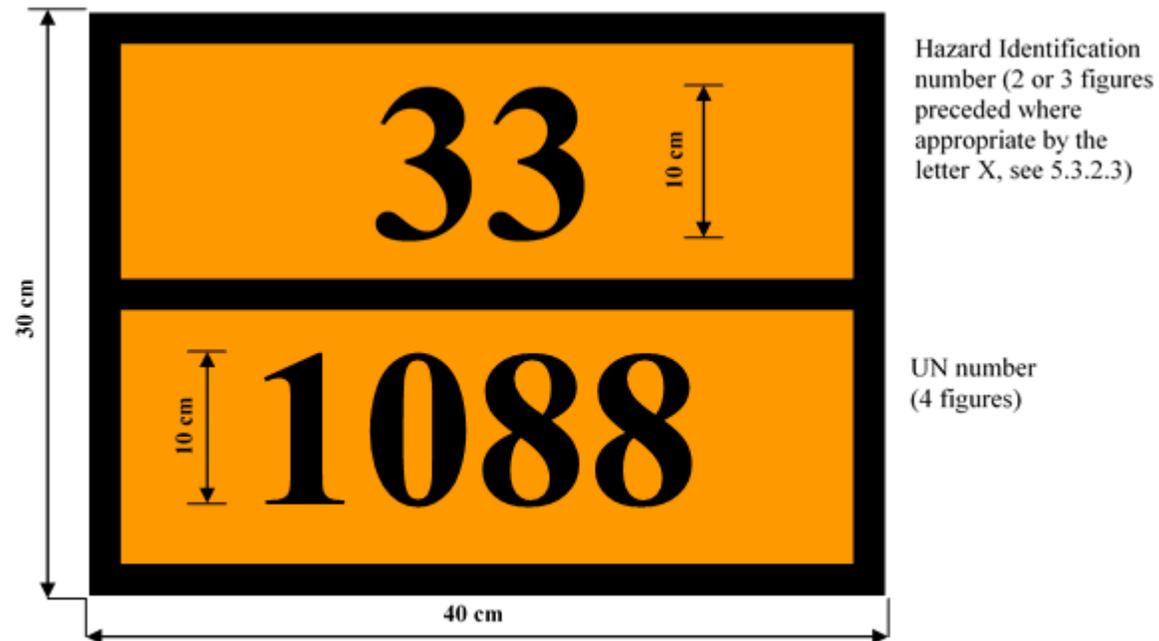


● Classification of dangerous goods

- **Class 1** Explosive substances and articles
- **Class 2** Gases
- **Class 3** Flammable liquids
- **Class 4.1** Flammable solids, self-reactive substances, polymerizing substances and solid desensitized explosives
- **Class 4.2** Substances liable to spontaneous combustion
- **Class 4.3** Substances which, in contact with water, emit flammable gases
- **Class 5.1** Oxidizing substances
- **Class 5.2** Organic peroxides
- **Class 6.1** Toxic substances
- **Class 6.2** Infectious substances
- **Class 7** Radioactive material
- **Class 8** Corrosive substances
- **Class 9** Miscellaneous dangerous substances and articles



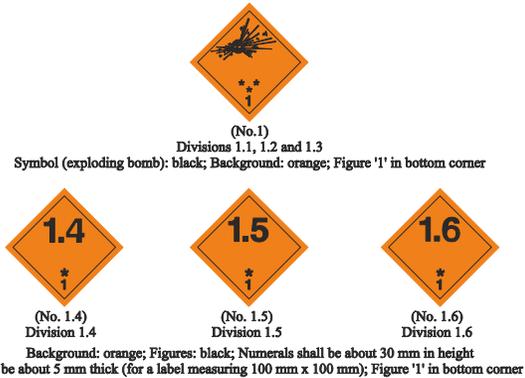
- **Orange coloured plates - 5.3.2.2.3**



Labels

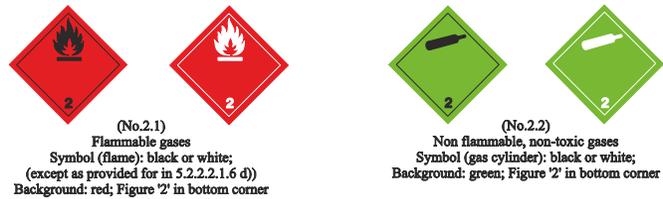
5.2.2.2.2 Specimen labels

CLASS 1 HAZARD Explosive substances or articles

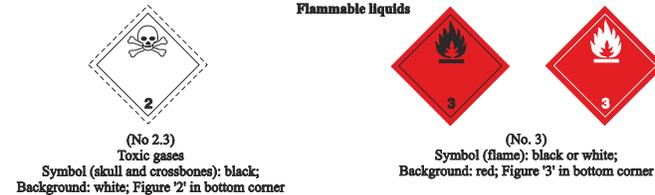


- ** Place for division - to be left blank if explosive is the subsidiary risk
- * Place for compatibility group - to be left blank if explosive is the subsidiary risk

CLASS 2 HAZARD Gases



CLASS 3 HAZARD Flammable liquids



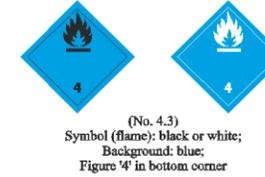
CLASS 4.1 HAZARD Flammable solids, self-reactive substances, polymerizing substances and solid desensitized explosives



CLASS 4.2 HAZARD Substances liable to spontaneous combustion



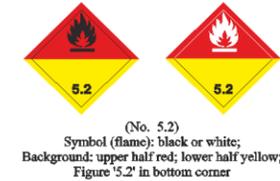
CLASS 4.3 HAZARD Substances which, in contact with water, emit flammable gases



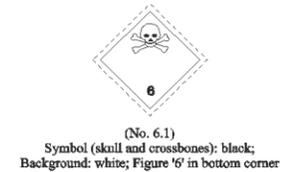
CLASS 5.1 HAZARD Oxidizing substances



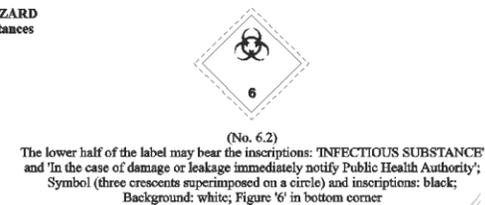
CLASS 5.2 HAZARD Organic peroxides



CLASS 6.1 HAZARD Toxic substances



CLASS 6.2 HAZARD Infectious substances



● Labels

CLASS 7 HAZARD
Radioactive material



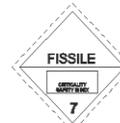
(No. 7A)
Category I - White
Symbol (trefoil): black;
Background: white;
Text (mandatory): black in lower half of label:
'RADIOACTIVE'
'CONTENTS'
'ACTIVITY'
One red bar shall
follow the word 'RADIOACTIVE';
Figure '7' in bottom corner.



(No. 7B)
Category II - Yellow
Background: upper half yellow with white border, lower half white;
Symbol (trefoil): black;
Text (mandatory): black in lower half of label:
'RADIOACTIVE'
'CONTENTS'
'ACTIVITY'
In a black outlined box: 'TRANSPORT INDEX';
Two red vertical bars shall
follow the word 'RADIOACTIVE';
Figure '7' in bottom corner.



(No. 7C)
Category III - Yellow
Background: upper half yellow with white border, lower half white;
Symbol (trefoil): black;
Text (mandatory): black in lower half of label:
'RADIOACTIVE'
'CONTENTS'
'ACTIVITY'
In a black outlined box: 'TRANSPORT INDEX';
Three red vertical bars shall
follow the word 'RADIOACTIVE';
Figure '7' in bottom corner.



(No. 7E)
Class 7 fissile material
Background: white;
Text (mandatory): black in upper half of label: 'FISSILE';
In a black outlined box in the lower half of the label:
'CRITICALITY SAFETY INDEX'
Figure '7' in bottom corner.

CLASS 8 HAZARD
Corrosive substances



(No. 8)
Symbol (liquids, spilling from two glass vessels
and attacking a hand and a metal): black;
Background: upper half white;
lower half black with white border;
Figure '8' in bottom corner

CLASS 9 HAZARD
Miscellaneous dangerous substances and articles



(No. 9)
Symbol (seven vertical stripes
in upper half): black;
Background: white;
Figure '9' underlined
in bottom corner



(No. 9A)
Symbol (seven vertical stripes
in upper half; battery group,
one broken and emitting flame
in lower half): black;
Background: white;
Figure '9' underlined
in bottom corner



● TDG File

- **Council Directive 95/50/EC of 6 October 1995 on uniform procedures for checks on the transport of dangerous goods by road**
- **Directive 2010/35/EU of the European Parliament and of the Council of 16 June 2010 on transportable pressure equipment and repealing Council Directives 76/767/EEC, 84/525/EEC, 84/526/EEC, 84/527/EEC and 1999/36/EC**

- Council Directive 95/50/EC for checks on transport of dangerous goods by road

- Applies to checks carried out by Member States on the transport of dangerous goods by vehicles travelling in their territory or entering it from a third country
- A representative proportion of consignments of dangerous goods transported by road is subject to checks
- *Annex I – Checklist*
- Copy of the checklist – given to the driver of the vehicle and presented on request in order to simplify or avoid, where possible, subsequent checks
- The checks shall be random and shall as far as possible cover an extensive portion of the road network
- Places chosen for checks to permit infringing vehicles to be brought into compliance

- Council Directive 95/50/EC for checks on transport of dangerous goods by road

- Serious or repeated infringements jeopardizing the safety of the transport of dangerous goods committed by a non-resident vehicle or undertaking must be reported to the competent authorities in the Member State in which the vehicle is registered or in which the undertaking is established
- *Annex II* – Infringements list
- Non-exhaustive list that gives a guideline on what is to be regarded as infringement
- Yearly reporting obligation by the Member States to the Commission (*Annex III*) on application of this Directive, in particular
- Latest revision of the Annexes - Commission Directive 2004/112/EC



Directive 2010/35/EU on transportable pressure equipment

“Transportable pressure equipment” means:

- all pressure receptacles, their valves and other accessories when appropriate, as covered in Chapter 6.2 of the Annexes to Directive 2008/68/EC;
- tanks, battery vehicles/wagons, multiple-element gas containers (MEGCs), their valves and other accessories when appropriate, as covered in Chapter 6.8 of the Annexes to Directive 2008/68/EC

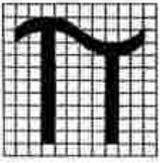
when the equipment under (a) or (b) is used in accordance with those Annexes for the transport of Class 2 gases, excluding gases or articles with figures 6 and 7 in the classification code, and for the transport of the dangerous substances of other classes specified in Annex I to this Directive



Directive 2010/35/EU on transportable pressure equipment

- **Sets out detailed rules concerning transportable pressure equipment to enhance safety and ensure free movement of such equipment within the Union**
- **Does not apply to TPE used for transport between MSs and 3rd countries**
- **Sets out the obligations of economic operators putting on the market TPE**
- **Establishes the rules for conformity assessment of transportable pressure equipment and the general principles of the Pi marking**
- **Member States need to establish the administrative structures for:**
 - (a) notification policy
 - (b) market surveillance





Directive 2010/35/EU on transportable pressure equipment

- **Notified Bodies** – perform conformity assessment, periodic inspection and exceptional checks of TPE
- **Authorities** perform the market surveillance and activate the safeguard procedures for TPE presenting a risk at national level or a risk to health and safety
- **This directive is part of the legislation enshrining the free movement of goods in the EU**
- **To be applied also in connexion with the New Legislative Framework**
 - Regulation (EC) No. 765/2008
 - Decision No. 768/2008/EC

Further information:

['Blue Guide' on the implementation of EU product rules](#)



Thank you for your attention!