



CEPOL Course 23/2010

CRIME CONTROL AND TRAFFIC SAFETY: INTERNATIONAL COMPARISON

Transport of Dangerous Goods (ADR)

Luísa Costa

Senior Engineer

Directorate for Legal and Economic Regulation



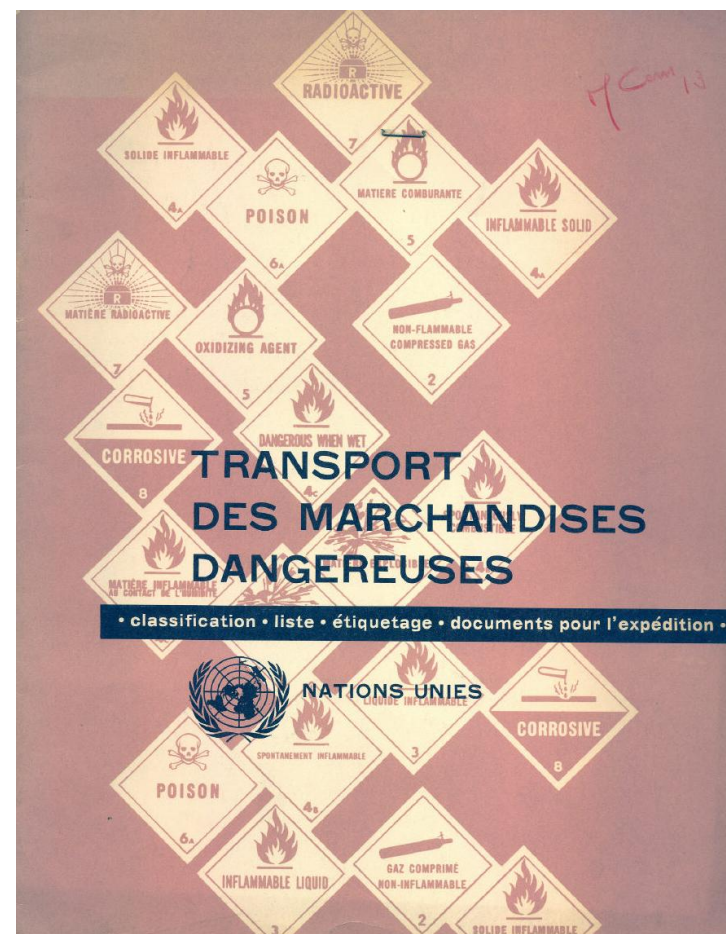
Instituto da Mobilidade
e dos Transportes Terrestres, I.P.

How did “born” the ADR ?

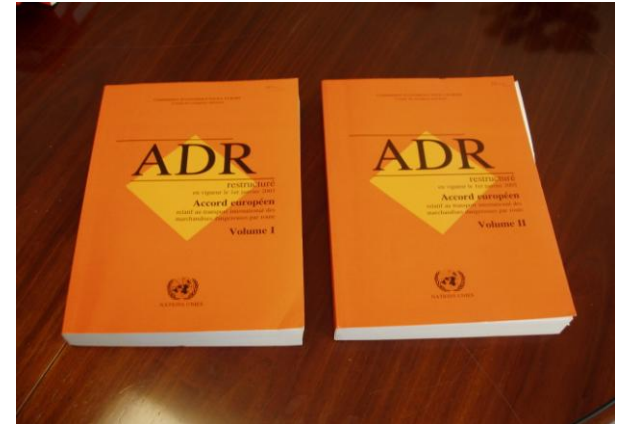
- After the 2nd World War, due to the increasing trend towards economic globalization, it became imperative to create uniform rules for the transportation of chemicals, taking into account the perspective of increasing safety
- The ECOSOC of the United Nations created the Committee of Experts on Transport of Dangerous Goods (13 experts from 7 countries) in 1953
- The Committee was tasked to prepare the following recommendations :
 - classification of dangerous goods according to their risk
 - enumeration of known dangerous goods
 - graphic marks or labels to identify the risks
 - simplification of the shipping documents

How did “born” the ADR ?

- After three years of work, involving several specialized international organization, the Committee adopted the first version of the desired Recommendations on the Transport of Dangerous Goods, at 12.09.1956

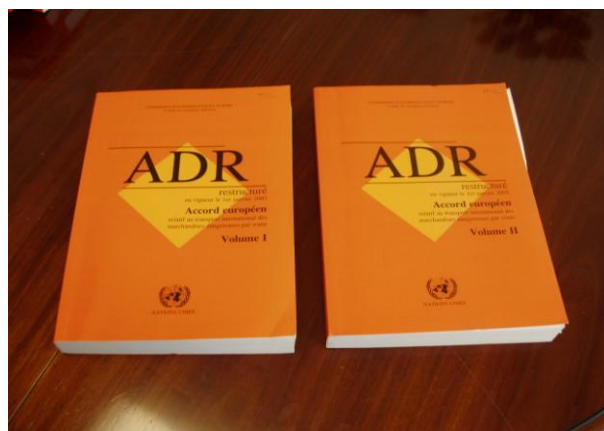


How did “born” the ADR ?



- At European level, and for transport by road, the respective Regional Commission of UN promoted the preparation of the ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road
- The Agreement was originally adopted in Geneva at 30.09.1957
- The first signatory countries were West Germany, Austria, Belgium, France, Holland, Italy, Luxembourg, the UK and Switzerland

How did “born” the ADR ?



- It required five ratifications or accessions to enter the ADR in force and, until 1967, only four countries had ratified it: Belgium, France, Holland and Italy
- The fifth country was Portugal, which deposited its accession on 29 December 1967, triggering the entry into force of the Agreement on 29.01.1968

Where does it applies the ADR

- They are now 47 countries contracting parties of the ADR including all Member States of the European Union, some countries in Asia and two in North Africa;

- Albania Andorra Austria Azerbaijan
Belarus Belgium Bosnia-Herzegovina Bulgaria
Kazakhstan Cyprus Croatia Denmark Slovakia
Russian Federation Slovenia Spain
Finland France Germany Greece Hungary Ireland Italy
Yugoslavia Latvia Liechtenstein Lithuania Luxembourg
Macedonia Malta Moldova Montenegro Morocco Norway
Poland Portugal United Kingdom Czech Republic Romania
Sweden Switzerland Tunisia Turkey Ukraine Estonia Netherlands
Serbia Slovakia



Who manages the ADR

- The technical provisions of ADR are reviewed regularly by the Working Group on Transport of Dangerous Goods (WP.15), which reports to the Inland Transport Committee of the UNECE



Articulation with other DG regulations

- **The Committee of Experts on the Transport of Dangerous Goods of ECOSOC (now designated subcommittee) continues to review every two years the Recommendations on the Transport of Dangerous Goods in all modes**
- **Biennial review of these recommendations, emanating from the guiding text for the regulations of each mode of transport, in whatever they are common**

MODEL REGULATIONS

Articulation with other DG regulations



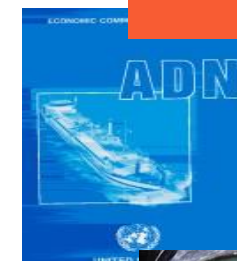
Road Transport
ADR (UNECE-WP.15)



Railway Transport
RID (OTIF)



Inland Waterway
ADN (UNECE)



Maritime Transport
IMDG (IMO)



Air Transport
TI-ICAO (ICAO)



Regulatory initiatives in Portugal

- During the 1970's and the 1980's, Portugal tried to align its national rules concerning road transport of dangerous goods with ADR
- Firstly, Portuguese Government has modernized the regulations concerning transport of explosives (1979)
- Secondly, it has been defined a national system of approval and certification of tank-vehicles (1980)
- Afterwards, it was defined the regulation of road transport of dangerous goods of classes 2 to 8 (1984)

Regulatory initiatives in Portugal

- Since 1986 Portugal became a EEC / EU member state. During the 1990's and the 2000's, there was an adaptation of national legislation to European guidelines.
- The first European directive concerning the transport of dangerous goods was the Directive 55/94/EC, 21 Nov 1994, and its content was the same as ADR.
- The transposition was mandatory for all member states. Portugal made the transposition into national law by Decree-Law n° 77/97, April 5 and Portaria n° 1196-C/97, Nov. 24

ADR



7136(-C) **DIÁRIO DA REPÚBLICA - SÉRIE A** N.º 20 - 27 de Outubro de 2008

MINISTÉRIO DAS OBRAS PÚBLICAS, TRANSPORTES E HABITAÇÃO
Decreto-Lei n.º 267-A/2003
de 27 de Outubro

A reconstituição integral dos anexos técnicos do Acordo Europeu Internacional relativo ao Transporte de Mercadorias Perigosas por Estrada (ADR), ocorrida no ano de 2001, teve em vista facilitar a articulação das regras do transporte rodoviário de mercadorias perigosas pelos agentes comerciais e promover o seu alinhamento com as regras aplicáveis aos outros modos de transporte.

Os 38 países que são partes contratantes do Acordo tiveram em seguida de proceder à adequação do seu regulamentação nacional ao ADR reestruturado, objetivo esse que, para os Estados membros da União Europeia, constitui um imperativo fixado pela Diretiva n.º 2001/77/CE, do Conselho, de 29 de Janeiro.

Em 1 de Janeiro de 2003 cessaram em vigor algumas cláusulas dos anexos do ADR reestruturado que se considerou oportuno retirar desde já em conta na nova regulamentação portuguesa, dando cumprimento à Diretiva n.º 2003/28/CE, do Conselho, de 7 de Abril.

Através do presente diploma procedem-se, pois, à transposição dos referidos atos comunitários, ao mesmo tempo que se aproveita para clarificar o dispositivo legal aplicado ao transporte rodoviário de mercadorias perigosas, à luz da experiência acumulada ao longo dos 24 anos de implementação de anteriores diplomas nacionais neste domínio.

No articulado deste decreto-lei optou-se por consignar expressamente apenas os preceitos necessários à aplicação do Regulamento Nacional do Transporte de Mercadorias Perigosas por Estrada (RPE) e do ADR, da Diretiva n.º 94/55/CE, do Conselho, de 21 de Novembro, e da Diretiva n.º 95/50/CE, do Conselho, de 6 de Outubro, sem se reproduzirem no articulado quaisquer disposições específicas do regulamento anexo ao presente diploma, cuja aplicação é obrigatória e que deverá, pois, ser obviamente assegurada.

Foi o que se adotou, designadamente no respeitante às definições, noções e notações, em que são aplicáveis os capítulos 1.2, 1.1 e 1.9 do RPE, e no respeitante à formação dos condutores de segurança, dos condutores de veículos e de outros trabalhadores, em que são aplicáveis os capítulos 1.8, 1.2 e 1.3, respetivamente.

Foi ainda a Comissão Nacional do Transporte de Mercadorias Perigosas.

Anexo.

Nos termos da alínea a) do n.º 1 do artigo 198.º da Constituição, o Governo decreta o seguinte:

CAPÍTULO I
Disposições gerais
Artigo 1.º
Âmbito
1 — O presente diploma regula o transporte rodoviário de mercadorias perigosas.

2 — Estão sujeitas à disciplina estabelecida pelo presente diploma todas as operações de transporte rodoviário de mercadorias perigosas efetuadas em território português, incluindo as actividades de carga e descarga, nas vias do domínio público, bem como nas vias de domínio privado, quando abertas ao trânsito público.

3 — O presente diploma transpõe para a ordem jurídica interna a Diretiva n.º 2001/77/CE, do Conselho, de 29 de Janeiro, e a Diretiva n.º 2003/28/CE, da Comissão, de 7 de Abril, que adaptam ao progresso técnico a Diretiva n.º 94/55/CE, do Conselho, de 21 de Novembro, relativa ao transporte rodoviário de mercadorias perigosas e a Diretiva n.º 2001/70/CE, do Parlamento Europeu e do Conselho, de 7 de Maio, que altera a Diretiva n.º 95/50/CE, do Conselho, de 6 de Outubro, relativa aos controlos rodoviários em transporte de mercadorias perigosas.

Artigo 2.º
Condições para o transporte rodoviário de mercadorias perigosas
1 — Os transportes rodoviários de mercadorias perigosas com origem e destino em território português devem ser efetuados nas condições estabelecidas no Regulamento Nacional do Transporte de Mercadorias Perigosas por Estrada (RPE), que constitui o anexo n.º 1 do presente diploma e que dele faz parte integrante.

2 — Aos transportes com origem ou destino em território estrangeiro aplicam-se o Acordo Europeu Relativo ao Transporte Internacional de Mercadorias Perigosas por Estrada (ADR), concluído em Genebra em 30 de Setembro de 1987 e aprovado, para adesão, pelo Decreto-Lei n.º 45 935, de 19 de Setembro de 1984.

Artigo 3.º
Mercadorias perigosas
Consideram-se mercadorias perigosas as matérias e objectos cujo transporte rodoviário é autorizado sob certas condições ou proibido pelo RPE ou pelo ADR.

Artigo 4.º
Derrogações para pequenas quantidades
1 — Podem ser adoptadas disposições menos restritivas que as previstas no RPE para operações de transporte limitadas ao território português e que envolvam apenas pequenas quantidades de determinadas mercadorias perigosas, com excepção de matérias de alta e média radioactividade.

2 — As derrogações referidas no número anterior serão comunicadas à Comissão Europeia e são regulamentadas por despacho do director-geral de Transportes Terrestres.

Artigo 5.º
Derrogações para transportes locais
1 — Podem também ser adoptadas disposições distintas das previstas no RPE para operações de transporte local, limitadas ao território português.

2 — As derrogações referidas no número anterior serão comunicadas à Comissão Europeia e são regulamentadas por despacho do director-geral de Transportes Terrestres.

The RID/ADR (Directive 2008/68/EC) was transposed into Portuguese law by the Decreto-Lei No. 41-A/2010, of 24 April

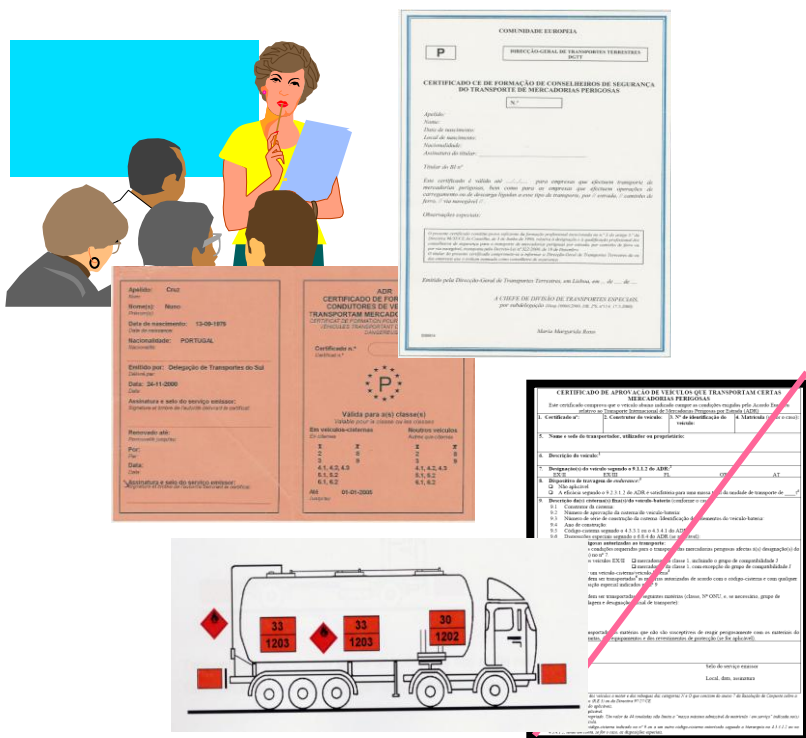
Authorities

The competent authorities for the transport of dangerous goods are defined by law and are as follows:

- **IMTT** – Instituto da Mobilidade e dos Transportes Terrestres
- **GNR** – Guarda Nacional Republicana
- **PSP** – Policia de Segurança Pública
- **ASAE/MEID** – Autoridade de Segurança Alimentar e Económica
- **DRE/MEID** – Direcções Regionais do Ministério da Economia
- **ITN** – Instituto Tecnológico e Nuclear
- **ANPC** – Autoridade Nacional de Protecção Civil
- Others (ANSR, APA, DG Saúde...)

Authorities

IMTT – Instituto da Mobilidade e dos Transportes Terrestres



Approval of training providers and courses for drivers and for safety advisers for the transport of dangerous goods

Approval of vehicles FL, OT, OX, EXII, EXIII and MEMU, intended for the transport of dangerous goods

Issuance of
 Training Certificates for drivers and safety advisers
 Approval Certificates for vehicles carrying DG

Management and coordination of the public authorities and private entities involved in the transport of dangerous goods through the CNTMP (National Commission for the Transport of DG)

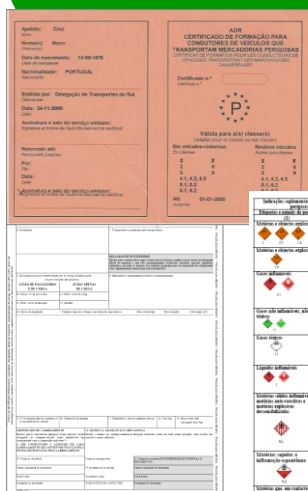
Authorities

GNR – Guarda Nacional Republicana
PSP – Policia de Segurança Pública
ASAE – Autoridade de Segurança Alimentar e Económica



Road Inspections
 Also inspections to warehouses, shops, factories
 PSP is the competent authority for explosives

Documents

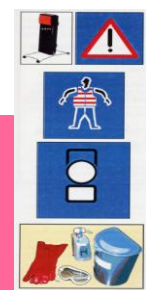
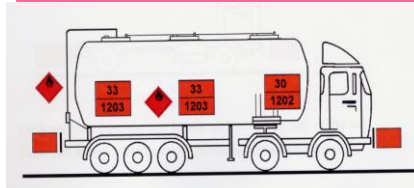


Classe de danger	Caractéristiques de danger	Caractéristiques de transport
1	Explosif	1.1, 1.2, 1.3, 1.4, 1.5, 1.6
2	Gaz	2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9
3	Liquide inflammable	3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 3.12, 3.13, 3.14, 3.15, 3.16, 3.17, 3.18, 3.19, 3.20, 3.21, 3.22, 3.23, 3.24, 3.25, 3.26, 3.27, 3.28, 3.29, 3.30, 3.31, 3.32, 3.33, 3.34, 3.35, 3.36, 3.37, 3.38, 3.39, 3.40, 3.41, 3.42, 3.43, 3.44, 3.45, 3.46, 3.47, 3.48, 3.49, 3.50, 3.51, 3.52, 3.53, 3.54, 3.55, 3.56, 3.57, 3.58, 3.59, 3.60, 3.61, 3.62, 3.63, 3.64, 3.65, 3.66, 3.67, 3.68, 3.69, 3.70, 3.71, 3.72, 3.73, 3.74, 3.75, 3.76, 3.77, 3.78, 3.79, 3.80, 3.81, 3.82, 3.83, 3.84, 3.85, 3.86, 3.87, 3.88, 3.89, 3.90, 3.91, 3.92, 3.93, 3.94, 3.95, 3.96, 3.97, 3.98, 3.99, 4.00
4	Solide inflammable	4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 4.10, 4.11, 4.12, 4.13, 4.14, 4.15, 4.16, 4.17, 4.18, 4.19, 4.20, 4.21, 4.22, 4.23, 4.24, 4.25, 4.26, 4.27, 4.28, 4.29, 4.30, 4.31, 4.32, 4.33, 4.34, 4.35, 4.36, 4.37, 4.38, 4.39, 4.40, 4.41, 4.42, 4.43, 4.44, 4.45, 4.46, 4.47, 4.48, 4.49, 4.50, 4.51, 4.52, 4.53, 4.54, 4.55, 4.56, 4.57, 4.58, 4.59, 4.60, 4.61, 4.62, 4.63, 4.64, 4.65, 4.66, 4.67, 4.68, 4.69, 4.70, 4.71, 4.72, 4.73, 4.74, 4.75, 4.76, 4.77, 4.78, 4.79, 4.80, 4.81, 4.82, 4.83, 4.84, 4.85, 4.86, 4.87, 4.88, 4.89, 4.90, 4.91, 4.92, 4.93, 4.94, 4.95, 4.96, 4.97, 4.98, 4.99, 5.00
5	Solide oxydant	5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.14, 5.15, 5.16, 5.17, 5.18, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24, 5.25, 5.26, 5.27, 5.28, 5.29, 5.30, 5.31, 5.32, 5.33, 5.34, 5.35, 5.36, 5.37, 5.38, 5.39, 5.40, 5.41, 5.42, 5.43, 5.44, 5.45, 5.46, 5.47, 5.48, 5.49, 5.50, 5.51, 5.52, 5.53, 5.54, 5.55, 5.56, 5.57, 5.58, 5.59, 5.60, 5.61, 5.62, 5.63, 5.64, 5.65, 5.66, 5.67, 5.68, 5.69, 5.70, 5.71, 5.72, 5.73, 5.74, 5.75, 5.76, 5.77, 5.78, 5.79, 5.80, 5.81, 5.82, 5.83, 5.84, 5.85, 5.86, 5.87, 5.88, 5.89, 5.90, 5.91, 5.92, 5.93, 5.94, 5.95, 5.96, 5.97, 5.98, 5.99, 6.00
6	Toxique	6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.23, 6.24, 6.25, 6.26, 6.27, 6.28, 6.29, 6.30, 6.31, 6.32, 6.33, 6.34, 6.35, 6.36, 6.37, 6.38, 6.39, 6.40, 6.41, 6.42, 6.43, 6.44, 6.45, 6.46, 6.47, 6.48, 6.49, 6.50, 6.51, 6.52, 6.53, 6.54, 6.55, 6.56, 6.57, 6.58, 6.59, 6.60, 6.61, 6.62, 6.63, 6.64, 6.65, 6.66, 6.67, 6.68, 6.69, 6.70, 6.71, 6.72, 6.73, 6.74, 6.75, 6.76, 6.77, 6.78, 6.79, 6.80, 6.81, 6.82, 6.83, 6.84, 6.85, 6.86, 6.87, 6.88, 6.89, 6.90, 6.91, 6.92, 6.93, 6.94, 6.95, 6.96, 6.97, 6.98, 6.99, 7.00
7	Radioactif	7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 7.10, 7.11, 7.12, 7.13, 7.14, 7.15, 7.16, 7.17, 7.18, 7.19, 7.20, 7.21, 7.22, 7.23, 7.24, 7.25, 7.26, 7.27, 7.28, 7.29, 7.30, 7.31, 7.32, 7.33, 7.34, 7.35, 7.36, 7.37, 7.38, 7.39, 7.40, 7.41, 7.42, 7.43, 7.44, 7.45, 7.46, 7.47, 7.48, 7.49, 7.50, 7.51, 7.52, 7.53, 7.54, 7.55, 7.56, 7.57, 7.58, 7.59, 7.60, 7.61, 7.62, 7.63, 7.64, 7.65, 7.66, 7.67, 7.68, 7.69, 7.70, 7.71, 7.72, 7.73, 7.74, 7.75, 7.76, 7.77, 7.78, 7.79, 7.80, 7.81, 7.82, 7.83, 7.84, 7.85, 7.86, 7.87, 7.88, 7.89, 7.90, 7.91, 7.92, 7.93, 7.94, 7.95, 7.96, 7.97, 7.98, 7.99, 8.00
8	Corrosif	8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, 8.11, 8.12, 8.13, 8.14, 8.15, 8.16, 8.17, 8.18, 8.19, 8.20, 8.21, 8.22, 8.23, 8.24, 8.25, 8.26, 8.27, 8.28, 8.29, 8.30, 8.31, 8.32, 8.33, 8.34, 8.35, 8.36, 8.37, 8.38, 8.39, 8.40, 8.41, 8.42, 8.43, 8.44, 8.45, 8.46, 8.47, 8.48, 8.49, 8.50, 8.51, 8.52, 8.53, 8.54, 8.55, 8.56, 8.57, 8.58, 8.59, 8.60, 8.61, 8.62, 8.63, 8.64, 8.65, 8.66, 8.67, 8.68, 8.69, 8.70, 8.71, 8.72, 8.73, 8.74, 8.75, 8.76, 8.77, 8.78, 8.79, 8.80, 8.81, 8.82, 8.83, 8.84, 8.85, 8.86, 8.87, 8.88, 8.89, 8.90, 8.91, 8.92, 8.93, 8.94, 8.95, 8.96, 8.97, 8.98, 8.99, 9.00
9	Danger divers	9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 9.11, 9.12, 9.13, 9.14, 9.15, 9.16, 9.17, 9.18, 9.19, 9.20, 9.21, 9.22, 9.23, 9.24, 9.25, 9.26, 9.27, 9.28, 9.29, 9.30, 9.31, 9.32, 9.33, 9.34, 9.35, 9.36, 9.37, 9.38, 9.39, 9.40, 9.41, 9.42, 9.43, 9.44, 9.45, 9.46, 9.47, 9.48, 9.49, 9.50, 9.51, 9.52, 9.53, 9.54, 9.55, 9.56, 9.57, 9.58, 9.59, 9.60, 9.61, 9.62, 9.63, 9.64, 9.65, 9.66, 9.67, 9.68, 9.69, 9.70, 9.71, 9.72, 9.73, 9.74, 9.75, 9.76, 9.77, 9.78, 9.79, 9.80, 9.81, 9.82, 9.83, 9.84, 9.85, 9.86, 9.87, 9.88, 9.89, 9.90, 9.91, 9.92, 9.93, 9.94, 9.95, 9.96, 9.97, 9.98, 9.99, 10.00

Marking and Labels



Placarding and Equipments



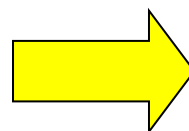
Authorities

DRE – Direcções Regionais do
Ministério da Economia



Inspections and approval of:
Tanks (fixed, demountable,
tank-containers), MEGC's
Pakagings, including pressure
receptacles and IBC's

ITN – Instituto Tecnológico e Nuclear



ANPC – Autoridade Nacional de
Protecção Civil



Analysis of accident reports (involving
dangerous goods)

Structure of ADR

- Part 1 – General provisions
- Part 2 – Classification
- Part 3 – Dangerous goods list, special provisions and exemptions
- Part 4 – Packing and tank provisions
- Part 5 – Consignments provisions
- Part 6 – Requirements for construction and testing of packagings, IBC's, tanks and bulk containers
- Part 7 – Provisions concerning conditions of carriage, loading, unloading and handling
- Part 8 – Requirements for vehicle crews, equipment, operation and documentation
- Part 9 – Requirements concerning the construction and approval of vehicles

Part 3 - Chapter 3.2

Dangerous goods list

- Class 1 – Explosive substances and articles
- Class 2 - Gases
- Class 3 – Flammable liquids
- Class 4.1 - Flammable solids, self-reactive 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 goods substances and articles

Part 1 - Chapter 1.4

Safety obligations of the participants

- In restructured ADR (2001), it was agreed that it would be useful to list the main obligations of companies involved in the carriage of dangerous goods by road
- The aim was to systematise indications that were dispersed and in some cases were even incongruent or partially superimposed
- The intention was also to influence the national authorities in the hope that they would bring their systems for characterising and punishing infringements closer to ADR

Part 1 - Chapter 1.4

Safety obligations of the participants

General obligations for all the participants in the carriage

Specific obligations for each of the following participants

- Consignor
- Carrier
- Consignee
- Loader
- Packer
- Filler
- Unloader
- Tank-container/portable tank operator

Part 1 - Chapter 1.10

SECURITY



Measures or precautions to minimize theft or intentional misuse of dangerous goods that may endanger persons, property or environment (since 2005)

Part 1 - Chapter 1.10

SECURITY

- Is introduced the concept of "high consequence dangerous goods" are those which have the potential for misuse in a terrorist incident and which may cause serious effects such as loss of numerous human lives and extensive destruction
- The list of high consequence dangerous goods is provided in Table 1.10.5. In short these goods are:
 - Explosives of division 1.1, 1.2, 1.3 e 1.5
 - Flammable gases in tank
 - Toxic gases in pressure receptacles and in tank
 - Flammable liquids (PG I and II) in tank
 - Oxidizing substances (PG I) in tank and in bulk
 - Toxic substances (PG I) in tank and in packages
 - Infectious substances of category A (bulk and packages)
 - Certain radioactive material
 - Corrosive substances (PG I) in tank

Part 1 - Chapter 1.10

SECURITY

This chapter lays down obligations for all transportation of high consequence dangerous goods, such as:

- The accurate identification of carriers and their drivers is a precondition for the shipment of goods
- The places of loading, unloading and temporary stay of vehicles must be controlled, with good lighting and prohibited to the public
- The inspections and controls on road safety should now contain elements of security
- The training of safety advisers and drivers should also include matters of security
- The transport of dangerous goods at high risk, requires a photo identification document for all crew members

Part 1 - Chapter 1.10

SECURITY

- Companies that make the load, unload, transport and also the consignors of high consequence dangerous goods are obliged to adopt and implement a "security plan"
- There should be (and be operational and effective) devices, equipment or systems to protect against theft of the vehicle carrying high consequence dangerous goods or their load
- When the necessary equipment are already installed, should be used telemetry systems or other or tracking methods or devices which allow to monitor the movement of high consequence dangerous goods

Thank you very much for your attention