

Version 2011



# Combined Road-Rail Transportation of Hazardous Goods

## MAIN CHANGES ADR/RID 2011

### • The instructions in writing (ADR/RID 5.4 et ADR 8.1)

The transport haulier is responsible for the instructions in writing (new standardised lay-out) and for the equipment in the road vehicle.

### • Environmentally hazardous substances (ADR/RID 2.2.9.1.10)

For these substances, the ADR/RID takes over the specific rules of the 34. Amdt. of the IMDG code. According to 5.2.1.8.3 the new marking (see section 'labels and markings') must be affixed for environmentally hazardous goods concerned by the section 2.2.9.1.10 ADR/RID. The end of the transitional period is fixed to 31.12.2013 except for UN 3077 and 3082 for which the date expired on 30.06.2009.

### • Limited quantities (ADR/RID 3.4)

Prior to a transport not including a maritime leg, the forwarders of hazardous goods packed in limited quantities must inform the transport haulier about the total gross weight of the goods for this category as from 01.01.2011. Moreover the new diamond-shaped marking or the 'LTD QTY' (valid until June 2015) must be displayed on the four sides of the loading unit for transport over 8 tons in limited quantities (transitional measure 1.6.1.20 also to consider). Weights are now directly mentioned in the table 3.2 in column 7a.

### • Marking of trailers carrying packages (RID 1.1.4.4.3)

If a trailer becomes separated from its tractor, the orange-coloured plates shall also be affixed to the front of the trailer or the corresponding placards shall also be affixed to both sides of the trailers except if the marking or the orange-coloured plates are not required by ADR (exemple 1.1.3.6).

## Combined Transport is a safe and environmentally friendly mode of transport.

Given that transport risks may be considerably increased by the inherent dangers of hazardous goods (dangers of fire, explosion, and toxic emissions) the safety and security aspects are essential. Seen from these aspects, the competitive advantages of rail are considerable overall over long distances.

Goods transported by road can usually be transported by rail. Specific requirements such as marking, labelling, stowage and lashing must be fulfilled by the loader and the transport haulier before arrival at the railway terminal.

This document outlines the basic regulations, which are essential for proper transportation. Our expert stays at your disposal for any further information.

## Legal provisions

The carriage of hazardous goods is regulated by: the RID in the case of rail transport, the ADR in the case of road transport, the IMDG in the case of maritime transport and the ADN in the case of inland waterway transport.

## Goods prohibited for carriage

Hazardous goods suitable for road transportation can usually be carried by combined transport. Goods prohibited for carriage in combined transport are listed in Table A of the ADR/RID document with the word "PROHIBITED". Furthermore, the following types of hazardous goods are not permitted in combined transport:

- Class 1 Explosive materials in compatibility group A (UN numbers 0074, 00113, 0114, 0129, 0130, 0135, 0224 and 0473)
- Class 4.1 Self-reacting materials requiring a temperature-controlled environment (UN numbers 3231 to 3240)
- Class 5.2 Organic peroxides requiring a temperature-controlled environment (UN numbers 3111 to 3120)
- Sulphur trioxide with a purity of 99.95% transported in tanks without inhibitor (Class 8, UN number 1829)

## Overall technical condition of the ITU

All ITUs must comply with the technical requirements in order to avoid any risk of incident or accident during transportation (i.e. loss of contents and vapours, smells, opening of the manhole cover).

Particular attention must be given to the stowage and lashing of packages in the ITU so as to avoid any movement during rail transportation.

## Refusal to transport and liability

If your ITU does not comply with the conditions of the shipping regulations, you will require to make the necessary changes to ensure the ITU is in conformity before loading. If not, the ITU will be refused for transportation.

ITUs will only be handed over for road transportation to duly identified road hauliers according to the procedures put in place in rail terminals.

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Information provided in this leaflet is for information purposes only and is not exhaustive.

## Information required in UIRR documents

According to chapter 5.4 of the ADR the following data must be transmitted to the UIRR companies either at the booking of a transport or, at the latest, at the conclusion of the UIRR contract.

### Rules for all classes

- The identification number of the hazard must precede the UN code when goods are transported in tank containers, tank swap bodies, MEGCs and bulk cargo containers (in accordance with RID regulations).
- The goods' UN number should be preceded by the letters 'UN'.
- The Proper Shipping Name should be specified and, if necessary, completed by its special provision(s) (SP) according to Column 6 of Table A (for example SP274, SP640 and SP61)
- Except for Class 7, the number of the hazard label template mentioned in column 5 of table 3.2.A or if necessary according to the SP of the column 6. Where several numbers of labels are given, the numbers which follow the first one, must be indicated in brackets. If there is no corresponding label template, the Class must be inserted.
- If relevant, the packing group attributed to the substance may be preceded by the letters 'PG'.
- If a substance meets the classification criteria of 2.2.9.1.10, the transport document must additionally contain the words 'ENVIRONMENTALLY HAZARDOUS SUBSTANCE'. This additional prescription shall not be applied for UN 3077 and 3082 neither for exemptions foreseen in 5.2.1.8.1.
- A declaration in accordance with the provisions of a particular agreement.
- For the transport of packages: the number and description of the packages, the total quantity of each substance should be characterised by its UN number, its Proper Shipping Name and Packing Group (expressed in volume, gross or net weight as the case may be). The total weight of the hazardous goods must be mentioned in kg.
- Limited quantity: indication of the gross weight.

### Additional rules for class 1

- The Classification Code specified in column 3b of table A and, if necessary, followed in brackets by the number of the label template other than 1, 1.4, 1.5 and 1.6.
- The total net mass of the explosive goods in kg; in case of complete loads, addition of the number of packages, the mass in kg of each package as well as the total net mass in kg of the explosive goods in each package.

### Additional rules for class 2

In the case of portable tanks and tank-containers containing deeply refrigerated liquefied gases, the consignor shall enter in the consignment note: "THE TANK IS GUARANTEED AS INSULATED IN ORDER THAT THE VALVES CANNOT OPEN BEFORE ...".

### Additional rules for transport including a maritime trip

For transport of an ITU preceding or following a maritime trip, if necessary, the "specific provisions": "TRANSPORT ACCORDING TO 1.1.4.2.1".

### Additional rules for waste transport

The word 'WASTE' should be put in front of the UN number and the proper shipping name, except if it is part of the proper shipping name (5.4.1.1.3).

### Additional rules for uncleaned empty loading units and packages

The goods' declaration for uncleaned containment other than class 7 and for gas recipients with a capacity of more than 1000 l must include the words 'EMPTY, UNCLEANED' (5.4.1.1.6.1).

The goods' declaration for uncleaned packages other than class 7 and including gas recipients with a capacity of not more than 1000 l must include the type of package followed by 'EMPTY' (5.4.1.1.6.2.1).

## Labelling and marking of ITUs

The labelling and orange markings of the ITUs used in combined transport must correspond to the models of labels fixed in the column (5) and if relevant in the column (6) of table A, chapter 3.2 according to rules of Chapters 5.2 and 5.3:

- An orange label with the danger code and the UN number must be placed on each side of tank containers, portable tanks, MEGCs, and bulk containers.
- During rail transportation, trailers have to maintain their labels and markings according to the ADR.
- Labels corresponding to the transported hazardous goods must be put on the four sides of swap bodies, containers, tank swap bodies, tank containers, MEGCs and bulk containers (chapter 5.3.1.2).
- For substances listed in 4.3.4.1.3, the official name of the transported goods must be written on tank containers according to 6.8.2.5.2.
- For substances listed in 3.4 (limited quantities), the marking 'LTD QTY' or the new diamond-shaped marking must be displayed on the four sides of the loading units for transport over 8 tons of packages in limited quantities, except if the unit is already marked by labels according to RID 5.3.1.
- For substances meeting the rules of section 2.2.9.1.10 (Environmentally hazardous substances), the marking must be fixed on the four sides when the labels must be affixed according to the rules of section 5.3.1.

Any markings and orange labelling of the goods last transported must remain on the uncleaned empty loading units or on the ITUs transporting uncleaned empty packages.

### Signification of the orange label marking



The number of the hazard code is comprised of two or three digits. Generally they stand for the following hazards (according to 5.3.2.3.1):

- 2 = Emission of gas due to pressure or to chemical reaction
- 3 = Flammability of liquids (vapours) and gas or self-heating liquid
- 4 = Flammability of solids or self-heating solids
- 5 = Oxidizing (fire-intensifying) effect
- 6 = Toxicity or risk of infection
- 7 = Radioactivity
- 8 = Corrosiveness.
- 9 = as first digit = other danger  
as last digit = risk of spontaneous violent reaction
- X = Substance reacts dangerously with water
- 0 = When the danger of a substance can be sufficiently indicated by one digit, this digit is followed by a zero (0)

Repetition of a digit indicates that the goods in question are of an intensified hazard (e.g. code 33 = highly flammable liquid).

## Labels and markings (chapter 5.2)

Explosive substances			
	1	1.4	1.5
Gas			
	2.1 Flammable gas	2.2 Non-flammable non-toxic gas	2.3 Toxic gas
Flammable liquids			
	3	3	
Flammable solids			
	4.1 Flammable solids Self-reactive and desensitized	4.2 Substances liable to spontaneous combustion	4.3 Substances which, when in contact with water, emit flammable gas
Oxidizing substances and organic peroxides			
	5.1 Oxidizing substances	5.2 Organic peroxides	
Toxic and infectious substances			
	6.1 Toxic substances	6.2 Infectious substances	
Radioactive materials			
	7A	7B	7C
Corrosive substances		Miscellaneous hazardous goods	
	8		9

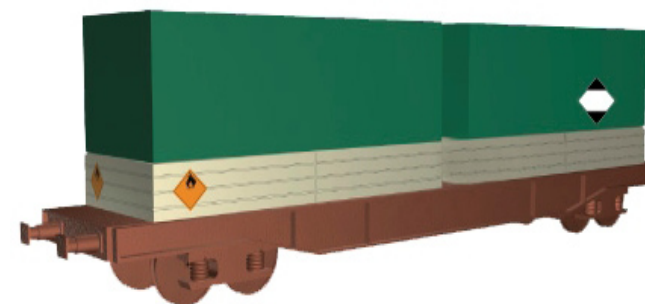
Goods transported at high temperatures	Environmentally hazardous substances	Limited Quantities (Left: valid until 30.06.2015)	

## Labels and markings: basic principles

### Tank Container



### Swap body / Container



### Trailer



### Marking of trailers carrying packages (RID 1.1.4.4.3)

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