



**Economic and Social
Council**

Distr.
GENERAL

TRANS/WP.15/2005/17*
15 August 2005

ENGLISH
Original: ENGLISH AND FRENCH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Dangerous Goods
(Seventy-ninth session,
Geneva, 7-11 November 2005)

PROPOSALS FOR AMENDMENTS TO ANNEXES A AND B OF ADR

Instructions in writing and protection equipment
Sections 5.4.3, 8.1.5, Chapter 8.5 and Chapter 3.2

Transmitted by the International Federation of Freight Forwarders Associations (FIATA)
and the International Road Transport Union (IRU)

Executive summary: This proposal is aimed at incorporating the large amount of various and partly identical information contained in numerous substance related instructions in writing into a single driver instruction in order to give drivers - especially when different dangerous goods are carried on a cargo transport unit - instructions on the measures to be taken in the case of an incident or accident which are clearer, easier to understand and written in a language that they understand.

In addition, it is intended to harmonize the different items of personal protection equipment referred to in the instructions in writing and to include them in a mandatory list.

Action to be taken: Amendment to Sections 5.4.3, 8.1.5, Chapter 8.5 and Chapter 3.2, Table A.

Related documents: TRANS/WP.15/2005/5.

* Reissued for technical reasons.

1. Introduction

In the event that an incident or accident occurs during the carriage of dangerous goods by road it must be ensured that drivers are provided with the required knowledge and instructions/information enabling to prevent or limit the potential impact of the incident/accident as effectively as possible.

This is ensured in two different ways that complement each other:

1) Training: Driver training covers all relevant transport situations (regardless of the maximum permissible weight as of 2007). Training must, inter alia, include the subject of “*behaviour following an accident (first aid, ensuring traffic safety, basic knowledge about the use of protection equipment etc.)*”. In general, it can therefore be assumed that the training level is high, has proved itself in practice and ensures that the driver takes appropriate action in the case of an incident or accident.

2) Information: Instructions in writing contain useful details on the general nature of the danger inherent in the goods and on the behaviour required in the case of an incident or accident. They have to be carried on board the vehicle during transport.

What is important in this context is the principle that the instructions in writing are directly and exclusively addressing the driver. The measures to be taken by the driver focus on self-protection, the warning of third parties as well as information to emergency services.

Measures exceeding the limited capabilities of the driver are carried out by the emergency services (fire service etc.) which use external systems that are designed to meet their specific needs (ERICards, TUIS, ICE etc.).

Based on the current mandatory system, drivers often carry a large number of substance-related instructions in writing on board their vehicles. Practical experience has shown that the system is counter-productive in many respects.

- The amount of information contained in various instructions in writing in different languages is confusing and does not contribute to enabling drivers to understand the instructions and carry them out correctly.
- Contents and text passages are identical in many written instructions. Information on dangers and measures is duplicated. For this reason drivers read the information less attentively or do not read it at all.
- In the case of an incident or accident, the driver cannot inform himself at a glance of the emergency actions to be taken by him. In such a stressful situation it is however useful if drivers are given short and precise instructions on the required behaviour and action.
- The reference contained in section 8.1.5 (c) (miscellaneous equipment) relating to the personal equipment to be determined in the instructions in writing by the consignor partly results in various items of protection equipment being prescribed for exactly the same

dangerous substance by different consignors at their own discretion. As a result, some of the instructions in writing may even contain contradictory information. This leads, above all, to uncertainties with regard to the use of the equipment by the driver during an incident or accident.

Practical experience has shown that a high demand for the application of a single instruction in writing covering all substances or, at least, of class-specific instructions exists. This applies to the carriage of different types of dangerous goods on a cargo transport unit (e.g. consolidated cargo and delivery transport operations) as well as to the transport of homogeneous loads.

- Concise information is read more attentively by the driver and is easier to understand than a large amount of partly duplicate, partly contradictory information contained in various sheets.
- A central source of information should therefore take the form of a single document containing details about general actions, regardless of the types of substances and quantities, and additional actions relating to the hazard classes concerned, and should cover all transport situations.
- The instruction in writing should contain a harmonized, mandatory list of protection equipment that has to be carried on board the vehicle. By means of such a list
 - both the carrier and the driver can check prior to carriage whether the required protection equipment is available;
 - the driver can, in the case of an accident – especially when different types of dangerous goods are transported – always use the appropriate protection equipment.

If this information/document was to be included in ADR, it would be available in all official languages of the ADR contracting states.

2. Proposal

2.1 Amendment of the provisions concerning the instructions in writing

5.4.3.1 Amend the first sentence as follows:

“As a precaution against any accident or incident that may occur or arise during carriage, the driver shall carry an instruction in writing on board the vehicle.”

and delete (a) to (f).

5.4.3.2 Amend the first sentence as follows:

“This instruction shall be provided by the carrier to the driver in a language that he can read and understand at the latest when the dangerous goods are loaded on the vehicle.”

Replace the second sentence with the following text:

“The carrier shall ensure that the drivers concerned understand and are capable of carrying out the instruction properly.”

5.4.3.3 Replace the existing wording with the following text:

“Before the start of the journey, the driver shall use the transport document to inform himself of the dangerous goods loaded and consult the instruction for details on general and special emergency actions to be taken in the event of an accident or incident.”

5.4.3.4 Amend as follows:

“The instruction shall be kept readily identifiable in the driver’s cab.”

5.4.3.5 Replace the existing wording with the following text:

“The instruction in writing shall correspond to the following four-page model as regards its form and content.”

Page 1

**Instruction in writing for drivers of vehicles
carrying dangerous goods in accordance with section 5.4.3 of ADR**

Warning! When carrying out these measures drivers shall always take the necessary steps for self-protection!

General emergency actions to be taken immediately by the driver in the case of an incident or accident:

General

- Stop the engine, apply the parking brake;
- Keep away from sources of ignition (e.g. no open fire) - prohibition of smoking;
- Put on the protection equipment;
- Make the accident site safe and warn other road users;
- Inform the police / emergency services immediately; provide information about the injured and, if possible, about loaded goods.
- Stay on the windward side;
- Retrieve the transport document(s) and hand it (them) over to the emergency services / police.

Fire

- Only put out incipient fires that occur on the vehicle;
- Do not take any measures in the event of a cargo fire.

Leakage

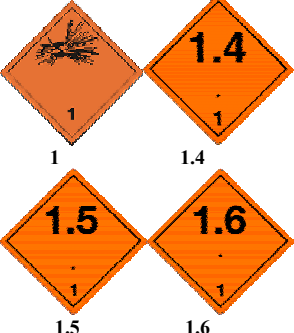
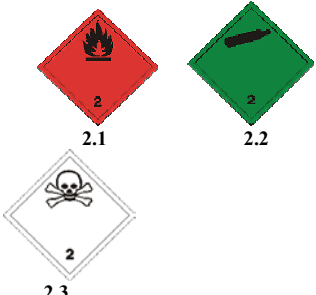




- Only plug smaller leaks / leakages in order to prevent more serious damages;
- Collect small quantities of liquid or confine spills using suitable material (e.g. sand).





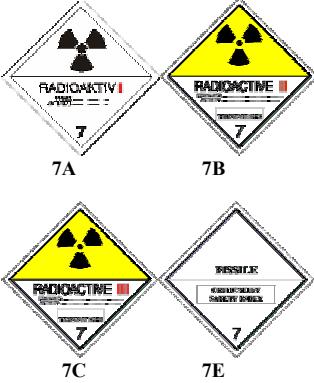


First aid

- Rescue the injured from the danger area;
- If a product gets in contact with the eyes, immediately rinse them with eye rinsing liquid;
- Take off contaminated clothes immediately.

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Hazard characteristics and additional risk-specific emergency actions to be taken by the driver. The hazard characteristics are indicated on the danger labels affixed to the packages or can be seen from the danger label numbers indicated in the transport document.

Danger label number 1	Type of goods and their hazard characteristics 2	Additional risk-specific emergency actions 3
 <p>1.1 1.4 1.5 1.6</p>	<p><i>Explosive substances and articles</i></p> <p>Risk of explosion. The formation of strong heat, bright light, loud noise, smoke or a combination of these effects as well as fragmentation is possible. Goods of this type respond to heat and may also respond to shocks and/or impacts.</p>	<p>In the event of fire take sufficient cover.</p>
 <p>2.1 2.2 2.3</p>	<p><i>Compressed, liquefied or dissolved gases</i></p> <p>Risk of explosion, detonation, fire and/or intoxication.</p> <p>Goods of this type respond to heat and may also respond to shocks and/or impacts.</p>	<p>In the event of fire or gas leakage take sufficient cover.</p>
 <p>3</p>	<p><i>Flammable liquids</i></p> <p>Risk of fire. Risk of explosion if vapour clouds form. Flammable if exposed to heat, flying sparks and flashover. Goods of this type present a risk to the aquatic environment and the sewerage system.</p>	<p>Prevent leaking substances from running into the aquatic environment or the sewage system.</p>
 <p>4.1</p>	<p><i>Flammable solids</i></p> <p>Risk of fire. Flammable if exposed to heat. May contain self-reactive substances that are liable to exothermic decomposition in the case of heat supply, contact with other substances (such as acids, heavy-metal compounds or amines), friction or shock. This may result in the evolution of harmful and flammable gases or vapours.</p>	<p>No additional actions required</p>
 <p>4.2</p>	<p><i>Substances liable to spontaneous combustion</i></p> <p>Risk of spontaneous combustion if packages are damaged or contents are spilled. Goods of this type may react vigorously with water.</p>	<p>No additional actions required.</p>
 <p>4.3</p>	<p><i>Substances which, in contact with water, emit flammable gases</i></p> <p>Risk of explosion and ignition if packages are damaged or contents are spilled. Goods of this type may react vigorously with water.</p>	<p>Spilled goods must be kept dry. Contact with water may cause the fire to spread and create the risk of explosion.</p>

Danger label number	Type of goods and their hazard characteristics	Additional risk-specific emergency actions
1	2	3
 <p>5.1</p>	<p><i>Oxidizing substances</i></p> <p>Risk of explosion, ignition and damage to health if packages are damaged and contents are spilled. Goods of this type may react vigorously in contact with flammable substances.</p>	<p>Avoid mixing with flammable substances (e.g. sawdust).</p>
 <p>5.2</p>	<p><i>Organic peroxides</i></p> <p>Liable to exothermic decomposition in the case of heat supply, contact with other substances (such as acids, heavy-metal compounds or amines), friction or shock. This may result in the evolution of harmful and flammable gases or vapours.</p>	<p>Avoid mixing with flammable substances (e.g. sawdust).</p>
 <p>6.1</p>	<p><i>Toxic substances</i></p> <p>Toxic hazard. Goods of this type present a risk to the aquatic environment and the sewerage system.</p>	<p>Do not inhale or ingest and avoid skin contact.</p>
 <p>6.2</p>	<p><i>Infectious substances</i></p> <p>Risk of infection. Goods of this type present a risk to the aquatic environment and the sewerage system.</p>	<p>Do not inhale or ingest and avoid skin contact.</p>
 <p>7A 7B</p> <p>7C 7E</p>	<p><i>Radioactive material</i></p> <p>Release of radioactivity is possible.</p>	<p>Do not inhale or ingest and avoid skin contact.</p>
 <p>8</p>	<p><i>Corrosive substances</i></p> <p>Risk of acid burns if packages are damaged or contaminated and if contents are spilled. These substances may react vigorously with each other, with water and with other substances. They present a risk to the aquatic environment and the sewerage system.</p>	<p>Avoid skin contact.</p> <p>Prevent leaking substances from running into the aquatic environment or the sewerage system.</p>
 <p>9</p>	<p><i>Miscellaneous dangerous substances and articles</i></p> <p>Risks (among other risks) resulting from asbestos, PCBs and allergens as well as substances carried under elevated temperature (temperatures above 100°C). Goods of this type present a risk to the aquatic environment and the sewerage system.</p>	<p>Do not inhale or ingest and avoid skin contact.</p> <p>Prevent leaking substances from running into the aquatic environment or the sewerage system.</p>

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Equipment for personal and general protection to be carried on board the vehicle in accordance with section 8.1.5 of ADR.

DANGER LABEL NUMBER	Protective goggles 1)	Eye rinsing liquid	Warning vest 1)	Hand lamp 1)	Emergency escape mask 1) 2)	Latex and leather gloves 1)	2 self-standing warning signs	Shovel 4)	Drain seal 4)	Collecting container made of plastics 4) 5)	Wheel chocks 6)
1	X	X	X	X		X	X	X		X	X
2	X	X	X	X	X 3)	X	X				X
3	X	X	X	X		X	X	X	X	X	X
4.1	X	X	X	X		X	X	X		X	X
4.2	X	X	X	X		X	X	X		X	X
4.3	X	X	X	X		X	X	X		X	X
5.1	X	X	X	X		X	X	X		X	X
5.2	X	X	X	X		X	X	X		X	X
6.1	X	X	X	X		X	X	X		X	X
6.2	X	X	X	X		X	X	X		X	X
7	X	X	X	X		X	X				X
8	X	X	X	X		X	X	X	X	X	X
9	X	X	X	X		X	X	X	X	X	X

- 1) For each member of the vehicle crew.
- 2) For example emergency escape cover or mask with a combined gas/dust filter of the A1B1E1K1-P1 or A2B2E2K2-P2 type which is similar to that described in the EN 141 standard.
- 3) Only for danger label 2.3 or danger label combination 2.1 + 6.1
- 4) Only when liquids are carried.
- 5) Minimum volume: 5 litres.
- 6) For each vehicle. The size must suit to the weight of the vehicle and to the diameter of the wheels.”

5.4.3.6 Delete.

5.4.3.7 Delete.

5.4.3.8 Delete.

2.2 Amendment of the provisions concerning general and personal protection equipment

8.1.5 Replace the wording with the following:

“Each transport unit carrying dangerous goods shall be provided with items of equipment for general and personal protection in accordance with the table below. The items of equipment shall be selected in accordance with the danger label number of the goods loaded. The numbers of the danger labels can be found in the transport document.

DANGER LABEL NUMBER	Protective goggles 1)	Eye rinsing liquid	Warning vest 1)	Hand lamp 1)	Emergency escape mask 1) 2)	Latex and leather gloves 1)	2 self-standing warning signs	Shovel 4)	Drain seal 4)	Collecting container made of plastics 4) 5)	Wheel chocks 6)
1	X	X	X	X		X	X	X		X	X
2	X	X	X	X	X 3)	X	X				X
3	X	X	X	X		X	X	X	X	X	X
4.1	X	X	X	X		X	X	X		X	X
4.2	X	X	X	X		X	X	X		X	X
4.3	X	X	X	X		X	X	X		X	X
5.1	X	X	X	X		X	X	X		X	X
5.2	X	X	X	X		X	X	X		X	X
6.1	X	X	X	X		X	X	X		X	X
6.2	X	X	X	X		X	X	X		X	X
7	X	X	X	X		X	X				X
8	X	X	X	X		X	X	X	X	X	X
9	X	X	X	X		X	X	X	X	X	X

- 1) For each member of the vehicle crew.
- 2) For example emergency escape cover or mask with a combined gas/dust filter of the A1B1E1K1-P1 or A2B2E2K2-P2 type which is similar to that described in the EN 141 standard.
- 3) Only for danger label 2.3 or danger label combination 2.1 + 6.1
- 4) Only when liquids are carried.
- 5) Minimum volume: 5 litres.
- 6) For each vehicle. The size must suit to the weight of the vehicle and to the diameter of the wheels.”

8.5 Delete special provision S7.

3.2 Delete special provision S7 in Table A, column 19, in various places.

3. Justification

Thanks to its simple structure, the described concept will be easier to understand for drivers and easier to implement for all those involved. Through the inclusion of this concept in ADR, it can be ensured that the information is translated into all official ADR languages and carried on board the vehicle by the driver in a language that he is able to read and understand; in this way drivers can implement measures in a more targeted manner.

4. Safety implications

Safety will be increased thanks to greater reliability, better comprehensibility and easier implementation.

5. Feasibility

No problems are expected.

6. Enforceability

No problems are expected.
