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**ECONOMIC COMMISSION FOR EUROPE  
INLAND TRANSPORT COMMITTEE**

**Working Party on the Transport  
of Dangerous Goods**

**Sixty-ninth session, agenda item,  
Geneva, 13-17 November 2000)**

**STOWAGE OF PACKAGES CONTAINING SUBSTANCES OF  
CLASSES 4.1 AND 5.2 OF ADR**

**AMENDMENTS TO ADR MARGINALS 41 414 (2) AND 52 403 (1)**

**Proposal transmitted by Germany**

Executive Summary:	a) Harmonized provisions for marginals 41 414 (2) and 52 414 (2) For the restructured ADR amendment of the additional provision CV21 under section 7.5.11 b) New provisions for loading of packages bearing a label conforming to model No. 5.2 in the same vehicle with packages bearing a label of model Nos. 1, 1.4 (except for compatibility group S), 1.5, 1.6 or 01 (except for packages bearing labels conforming to Nos. 5.2 and 01)
Action to be taken:	Amendments to marginals 41 414 (2) and 52 403 (1) of ADR. For the restructured ADR amendments of the table under section 7.5.2.1 and amendments of the additional provision CV21 under section 7.5.11
Related documents:	TRANS/WP.15/1999/35 and TRANS/WP.15/2000/11

## **1. Amendments to ADR marginal 41 414 (2)**

### **General remarks**

At the Working Party on the Transport of Dangerous Goods (sixty-seventh session, Geneva, 8-12 November 1999), the German representative stated that the existing provisions for stowage of packages containing self-reactive substances requiring temperature control (41 ° to 50 °) and organic peroxides requiring temperature control (11 ° to 20 °) are not harmonized and lead to confusions (see doc. TRANS/WP.15/1999/40, 28 July 1999). At the same meeting, Germany announced the submission of a new proposal for the next meeting to solve these problems.

According to ADR marginal 41 414 (2), stacking of packages containing substances of 41 ° to 50 ° (self-reactive substances requiring temperature control) is not permitted. This means that these substances are not allowed to be placed on top of other goods.

There is no similar restrictive provision regarding stowage of substances of class 5.2, 11 ° to 20 ° (organic peroxides requiring temperature control) in ADR marginal 52 414 (2). In the opinion of Germany the provisions of marginal 41 414 (2) should be harmonized with those of ADR marginal 52 414 (2).

### **Proposal**

The new marginal 41 414 (2) of ADR should read as follows:

“(2) Packages containing substances of 41 to 50 shall be so stowed as to be readily accessible.”

For the restructured ADR the second point of the additional provision CV 21 under section 7.5.11 should read as follows:

“Packages shall be so stowed as to be readily accessible.”

### **Justification**

Germany is of the opinion that both groups of substances “organic peroxides” and substances” requiring temperature control because of similar physical/chemical properties should be stowed/stacked in the same manner. In sea-transport - which normally requests more stringent provisions - the stowage/stacking for the above mentioned groups of substances is allowed.

## **2. Amendments to ADR marginal 52 403 (1) + (2)**

### **Proposal**

The new marginal 52 403 (1) of ADR should read as follows:

“(1) packages bearing a label conforming to model No. 5.2 shall not be loaded together in the same vehicle with packages bearing a label conforming to models Nos. 1, 1.4 (except for compatibility group S) 1.5, 1.6 or 01 (except for packages bearing labels conforming to models Nos. 5.2 and 01).”

### **Justification**

The prohibition of “mixed loading” is justified for safety reasons, only if in case of leakage the content reacts dangerously with each other and cause:

- combustion and/or evolution of considerable heat;
- evolution of flammable, toxic or asphyxiant gases;
- the formation of unstable substances.

These hazardous reactions cannot occur with organic peroxides which have been classified in a different way because of their hazardous potential. On the contrary, in the case of organic peroxides marked with the additional label “explosive” and mixed with other less hazardous organic peroxides, there will be a dilution of the hazardous component and the “total hazardous potential” will decrease.

## **3. Amendments to the restructured ADR table under sub section 7.5.2.1**

### **Proposal**

A third footnote should be added to read as follows:

“3/ For self-reactive substances mixed loading is permitted between such substances and other self-reactive substances with or without subsidiary risk label No. 1.”

The refer to this new footnote should be added to row 4.1 and column 4.1.

### **Justification**

There is a problem for mixed loading of the self-reactive substances. They should not loaded together with other substances of class 4.1 with the exception of self-reactive substances with or without a subsidiary risk label No. 1.

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