



**Economic and Social  
Council**

Distr.  
GENERAL

TRANS/WP.15/AC.1/2003/55  
12 June 2003

ENGLISH  
Original: FRENCH

---

**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Dangerous Goods

Joint Meeting of the RID Safety Committee and the  
Working Party on the Transport of Dangerous Goods  
(Geneva, 1-10 September 2003)

**MIXED LOADING OF SELF-REACTIVE SUBSTANCES OF CLASS 4.1  
WITH OTHER SUBSTANCES OF CLASS 4.1**

**Transmitted by the Government of Germany\***

The secretariat has received from the Central Office for International Carriage by Rail (OCTI) the proposal reproduced below.

**SUMMARY**

**Executive summary:** Self-reactive substances constitute a special group of substances within Class 4.1. Under the effect of catalysts, these substances can decompose very rapidly, and even explosively in some cases. Other substances of Class 4.1 may act as catalysts. The purpose of this document is to prevent the mixed loading of self-reactive substances of Class 4.1 and other substances of Class 4.1.

**Action to be taken:** Add a footnote to the table in 7.5.2.1.

**Related documents:** TRANS/WP.15/1999/35 and TRANS/WP.15/2000/11/Rev.1.

---

\* Circulated by the Central Office for International Carriage by Rail (OCTI) under the symbol OCTI/RID/GT-III/2003/55.

## **Introduction**

The decomposition of self-reactive substances may be triggered by heat, friction, impact or catalysts. The rate of decomposition increases with the temperature. Catalysts may contribute to a still higher reaction rate at a given temperature, or to a reduction of the temperature at which the higher rate of decomposition takes place.

From the point of view of the Government of Germany, the mixed loading of packages containing self-reactive substances and packages containing other substances of Class 4.1 should not be possible.

## **Proposal**

In the table in 7.5.2.1, add a footnote at the interface between row 4.1 and column 4.1, to read:

“Mixed loading of self-reactive and other substances of Class 4.1 is not permitted.”

## **Justification**

### *Safety*

The prohibition on mixed loading should ensure that if the contents of packages leak no dangerous reactions will occur, for example:

- combustion and/or release of considerable heat,
- emission of inflammable and/or toxic gases,
- formation of unstable substances.

In the case of self-reactive substances which, because of their danger potential, are classified with their packaging, this type of dangerous reaction may occur in the event of a leak or mixing with other substances of Class 4.1, since the latter may act as catalysts.

### *Feasibility*

There should be no difficulty. During inspection, as well as packages containing self-reactive substances, packages provided with a danger label conforming to model No. 1.4S should no longer be contained, while the prohibition on the mixed loading of packages provided with a danger label conforming to model No. 1 and packages containing self-reactive substances not provided with a label conforming to model No. 1 should continue to be observed.

-----