RID/ADR

Joint Meeting of the RID Safety Committee and the Working Group on the Transport of Dangerous Goods (Geneva, 10 to 14 September 2001)

Mixed loading of self-reactive substances of class 4.1 with other substances of class 4.1

Proposal transmitted by Germany

Summary

Self-reactive substances are a particular group of substances within class 4.1. These substances are liable to undergo a very rapid decomposition in contact with catalysts; some of them may even decompose explosively. Other substances of class 4.1 may have a catalytic effect. The purpose of this document is to achieve a prohibition of mixed loading of self-reactive substances of class 4.1 and other substances of class 4.1.

Addition of a footnote to the table of paragraph 7.5.2.1.

Introduction

The decomposition of self-reactive substances may be initiated by heat, friction, impact or catalysts. The rate of decomposition increases with temperature. Catalysts may contribute to an even higher rate of decomposition at a given temperature or to initiating the self-accelerating decomposition at a lower temperature.

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

Proposal

A new footnote as following below should be added to the table of paragraph 7.5.2.1 and a corresponding reference in the box at the intersection between the horizontal line 4.1 and the vertical column 4.1:

“Mixed loading of self-reactive substances with other substances of class 4.1 is not permitted.”

Justification

Safety: The prohibition of mixed loading is justified for reasons of safety so that in case of leakage of the contents of the packages no dangerous reactions occur, such as

- combustion and/or the generation of considerable heat,
- the development of flammable and/or toxic gases, and
- the formation of unstable substances.

These dangerous reactions are liable to occur with self-reactive substances, which owing to their hazard potential are classified with their packagings, in case of leakage and mixing with other substances of class 4.1 since the latter may act as catalysts.

Practicability: There should be no difficulties. When checks are carried out, the load may contain, except for packages containing self-reactive substances, only packages bearing a label conforming to model No. 1.4 S; the prohibition of mixed loading of packages bearing a label conforming to model No. 1 and packages containing self-reactive substances and not bearing a label conforming to model No. 1 should also be complied with.