



**Economic and Social
Council**

Distr.
GENERAL

TRANS/WP.15/AC.1/2005/9
13 December 2004

Original: ENGLISH

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
(Bern, 7-11 March 2005)

NEW PROPOSALS OF AMENDMENTS TO RID/ADR/ADN

Compatibility testing of plastics packaging

Transmitted by the Government of the Netherlands */

SUMMARY	
Executive Summary:	Updating of the present system of compatibility testing in RID/ADR.
Action to be taken:	Amendment to the relevant paragraphs of Part 4 and 6 of RID/ADR 2005.
Related documents:	See document TRANS/WP.15/AC.1/2004/19 and informal document September04/INF.4 for all essential and more detailed results of the CHEMPACK project. See also INF. 23 and INF. 26, distributed at the last RID/ADR Joint Meeting (Geneva, 13-17 September 2004).

Introduction

In the period 1997-2000, a project was carried out with the support of the SMT (Standards, Measurements and Testing) programme of the European Commission (contract no. SMT 4-CT97-2175) called CHEMPACK. In this project, coordinated by TNO in the Netherlands, 4 European institutes acting as test institutes and competent authorities for matters

*/ Circulated by the Central Office for International Carriage by Rail (OCTI) under the symbol OCTI/RID/GT-III/2005/9.

concerning the packaging of dangerous goods cooperated with 9 industrial companies (manufacturers of the material polyethylene and manufacturers of packaging and IBCs).

The objectives of the project CHEMPACK were twofold:

1. To investigate if the present system of compatibility testing of plastics packaging and IBCs with standard liquids as included in the regulations of RID/ADR for specific kinds of PE (polyethylene) can be applied to PE in general.
2. To evaluate the present procedure of testing with standard liquids and the assimilation of substances.

The results¹ showed that the present system of compatibility testing with standard liquids for specific kinds of PE can indeed be applied to packagings and IBCs manufactured from PE in general.

Also the assimilation procedures as given in Chapter 4.1 of the RID/ADR regulations and in more detail in the standard EN ISO 16101 can be applied more widely.

Further, it was shown that the standard liquid system can be simplified as follows:

- For the standard liquids wetting solution and acetic acid, it is not necessary to store the packaging/IBC for 3 weeks at 40 °C, as mentioned in 6.1.5.2.6, when the samples are subjected to a stacking test (performed with the standard liquid at 40 °C for 4 weeks);
- The best choice for the standard liquid wetting solution is an aqueous solution of alkyl benzene sulphonate in view of the temperature stability and required minimum concentration.

On the basis of these results, it is proposed to make some amendments to RID/ADR.

Apart from this proposal, which is a matter of change of contents of RID/ADR 2005, a further discussion is to be expected in the Joint Meeting in the future, on the way of how to refer in RID/ADR to the standard EN ISO 16101. This discussion could lead to some editorial changes to this proposal.

At the last RID/ADR Joint Meeting (Geneva, 13-17 September 2004) EuPC (European Plastic Converters) commented our document TRANS/WP.15/AC.1/2004/19, i.e. raised in document September 04 /INF. 23 the problem of the further use of existing approvals of design types which were not tested with alkyl benzene sulphonate. EuPC proposed to solve this problem by allowing other wetting agents than alkyl benzene sulphonate.

¹ All essential and more detailed results are to be found in informal document September 04 / INF.4.

It is proposed to solve this problem by the insertion of a transitional period: the Joint Meeting can be asked to consider two options (as laid down in our Proposal 2) , based on the question whether the restriction of the standard liquid “wetting solution” to alkyl benzene sulphonate justifies a limited transitional period, i.e. a new type approval, from the point of view of safety. In the opinion of the Netherlands a better definition of the wetting agent is important in order to reach a more uniform test level, but is not considered as an important safety issue.

At the last RID/ADR Joint Meeting (see report TRANS/WP.15/AC.1/96, paras 37 and 38), a short discussion started on document TRANS/WP.15/AC.1/2004/19 and a procedure was agreed on further treatment of this subject.

Proposal 1

The following modifications are proposed:

- 4.1.1.2 In Note delete “high and medium molecular mass”;
- 4.1.1.19.1 – In the 1st sentence delete “high and medium molecular mass”;
 - In the 1st sentence delete “high molecular mass”;
- 6.1.5.2.5 In Note delete “high or average molecular mass”;
- 6.1.5.2.6 - In the 1st sentence delete “high molecular mass” (2x).
 - In the 1st sentence delete the text “ conforming to the following specifications in accordance with ISO Standard 1133”; (clarification: delete the text until and including the last time that “in accordance with ISO Standard 1133” occurs)
 - In the 2nd sentence delete “high or medium molecular mass”;
 - Insert after 3rd sentence (“For the first 6.1.5.3 to 6.1.5.6.”): “Storage is not required for test samples which are used for the stacking test in case of the standard liquids wetting solution and acetic acid”;
 - In the last sentence delete “high density, high or medium mass”.
- 6.1.5.2.7 In the 1st sentence delete “high or medium molecular mass”.
- 6.1.6 Delete “high or medium molecular mass”.
- 6.1.6.1 (a) replace “1 to 10% of a wetting agent” by “1% of alkyl benzene sulphonate”.
 - (f) Insert after 2nd sentence: “A design type test with water is not required if adequate chemical compatibility is proved with wetting solution or nitric acid”.

- 6.5.4.3.5 - In the 1st sentence delete “high molecular mass”;
- In the 1st sentence delete “conforming to the following specifications in accordance with ISO Standard 1133”;
 - In the 2nd sentence delete “high or medium molecular mass”;
 - In the last sentence delete “high density, high mass”;
 - Insert after 3rd sentence (“The sufficient...is not required.”): “Storage is not required for test samples which are used for the stacking test in case of the standard liquids wetting solution and acetic acid”.
- 6.5.4.3.6 In the 1st sentence delete “high molecular mass”.

Proposal 2

Option 1

Insert, in analogy to 1.6.1.7 ADR)/1.6.1.9 (RID), a transitional measure to read:

- 1.6.1.x Type approvals for drums, jerricans and composite packagings made of high or medium molecular mass polyethylene issued before 1 July 2007 in accordance with the requirements of 6.1.5.2.6 juncto 6.1.6.1. (a) in force up to 31 December 2006, but which are not in accordance with the requirements of 6.1.6.1 (a), continue to be valid until 31 December 2011. Any such packagings manufactured and marked on the basis of these type approvals may be used until the end of their period of use determined in 4.1.1.15.

Option 2

Insert a transitional measure to read:

- 1.6.1.x Type approvals for drums, jerricans and composite packagings made of high or medium molecular mass polyethylene issued before 1 July 2007 in accordance with the requirements of 6.1.5.2.6 juncto 6.1.6.1 (a) in force up to 31 December 2006, but which are not in accordance with the requirements of 6.1.6.1 (a), continue to be valid.
