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COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS AND ON THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS

Sub-Committee of Experts on the
Transport of Dangerous Goods

Thirty-fourth session
Geneva, 1-9 December 2008
Item 3 of the provisional agenda

PERFORMANCE OF PACKAGINGS, INCLUDING IBCs

Permeation through the walls of plastics: Proposal to delete sub-section 6.1.4.0

Transmitted by the expert from the United Kingdom[1]

Introduction

1. During the last session of the Sub-Committee, the expert from Germany proposed changes to Chapter 4.1 and Chapter 6.1 to address problems of permeation through plastics material (see ST/SG/AC.10/C.3/2008/45). The Sub-Committee subsequently adopted new text for 4.1.1.2 proposed by the expert from Canada and 6.1.4.0 proposed by the expert from Germany (see ST/SG/AC.10/C.3/66/Add.1). The expert from the United Kingdom supports the new text for 4.1.1.2 but believes the text for 6.1.4.0 is unnecessary, unlikely to enhance safety and places an unfair burden on packaging manufacturers. The expert from the United Kingdom asks that the Sub-Committee reconsider its decision to adopt the text in 6.1.4.0; the paragraphs below explain his reasoning.

[1] In accordance with the programme of work of the Sub-Committee for 2007-2008 approved by the Committee at its third session (refer to ST/SG/AC.10/C.3/60, para. 100 and ST/SG/AC.10/34, para. 14).

Reasons

2. The expert from the United Kingdom believes that the Model Regulations require the user/consignor to ensure that their product is compatible with the packaging they intend to use. Only these participants in the transport chain will know or have access to information that provides the formulation of the product. Even simple substances such as nitric acid are not 100 per cent pure and will contain impurities and such impurities may affect compatibility with the packaging material. It is likely therefore that the user/consignor will be more aware of these impurities than the manufacturer. Paragraph 4.1.3.1, as well as the existing text in 4.1.1.2, places a requirement on the user to check compatibility.

3. The same premise must apply to permeation, i.e. it is the responsibility of the consignor and user to ensure that this does not constitute a danger in transport and for that reason the expert from the United Kingdom supports the inclusion of the new paragraph ‘c’ for 4.1.1.2.

4. However, new text is now also placed in 6.1.4.0 in the section on construction requirements for the packaging. This implies that the manufacturers of the packaging must be responsible for the compatibility of the packaging when they are unlikely to know the identity or the requirements of future customers who ask them to supply packaging. To make a packaging manufacturer take responsibility when he does not know the precise chemical formulation of the substance to go in the packaging does not make sense.

5. There is also editorial inconsistency in that the text adopted for 6.1.4.0 has not been placed in either Chapter 6.5 (for IBCs) or 6.6 (for large packagings). If a substance permeates, then why is the same provision not provided for an IBC or a large packaging? The text on compatibility applies also to plastic IBCs and plastic large packagings and therefore if the Sub-Committee decides 6.1.4.0 is to be retained, an equivalent provision on permeation needs to be added in 6.5.5 and 6.6.4 at the beginning of the section.

6. Finally, it was pointed out during the debate in July that all packagings, not only plastics, can permeate even if it is only through closures. It can be argued therefore, that provisions addressing permeation should apply to all packagings. As mentioned above this would prove an unnecessary burden on the packaging industry as a packaging manufacturer does not have the complete technical knowledge of the chemical which is going to be placed in a packaging. Even if the packaging manufacturers were given complete data by a potential customer, would they still be held responsible if that customer subsequently chose to change the formulation for the substance without reference back to the packaging manufacturer? Clearly not, so it is difficult to see what is achieved by a provision in Chapter 6.1.

7. The expert from the United Kingdom proposes that sub-section 6.1.4.0 be deleted.

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