
Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

23 June 2021

Sub-Committee of Experts on the Transport of Dangerous Goods

Fifty-eighth session

Geneva, 28 June-2 July 2021

Item 6 (b) of the provisional agenda

Miscellaneous proposals for amendments to the Model Regulations

on the Transport of Dangerous Goods: packagings including the use of recycled plastics material

Comments on informal document INF.6 (58th session) on regulatory aspects on the use of recycled plastics

**Transmitted by the International Confederation of Container
Reconditioners (ICCR), the International Council of Intermediate Bulk
Container Associations (ICIBCA) and the International Confederation
of Plastics Packaging Manufacturers (ICPP)**

Introduction

1. For packagings authorized to be made of suitable plastic material which may include recycled plastics, there is no readily apparent need for additional marking from a transport safety perspective. However, all packagings should be correctly marked with the material from which it is made.
2. Authorization to use “suitable plastic material” is longstanding, dating back to at least 1990. With no indication to the contrary, the industry has understood “suitable plastics material” to include suitable plastics material derived from recycled plastics.
3. Different from plastic packagings subject to the “recycled plastics material” definition in 1.2.1 (i.e. for single packagings including plastic drums and jerricans, and IBCs), other packagings that are authorized to be made from “suitable plastics material” are generally limited to ones used for solid materials or serve as the outer packaging for a combination packaging. Release from these packagings of the authorized solids or authorized contents of inner packagings generally poses a lower degree of transport risk. For this reason, the scope of design type testing for these packagings is already reduced today.
4. Further, the basic principle of a performance-oriented standard is to define a design type with necessary detail, to test the performance of that design type, to record the results of this testing, and overall to utilize quality assurance so that the packaging produced is consistent with the original design. All of this activity including assurance of the quality of the “suitable plastics material” is subject to approval by the competent authority. This approach has enabled governments and industry throughout the world to abandon prescriptive specifications, thereby facilitating commerce without losing the safety record that had been achieved with specifications.
5. Informal document INF.6 appears to seek a reversal of this successful program, by establishing a revised definition of “suitable plastics material” to specify new requirements with respect to recycled plastics content for certain packagings. This approach appears to be partially based upon a fear that manufacturers will incorporate sub-standard recycled materials when making new packaging. We deny the basis for such a concern. Makers of dangerous goods packaging, under the existing definitions, must produce units that meet the defined design type and will perform as that design type has been tested.

6. The associations transmitting this comment believe the existing UN Model Regulations are sufficient to maintain the level of safety that is experienced today, without revising the definition of suitable plastics material.

Answers to the questions in informal document INF.6 (58th session)

7. In conclusion, we answer the questions raised in informal document INF.6 as follows:

- *“Suitable plastics material” is a broad and non-specific term and can be interpreted quite differently. Should it be more clearly defined when plastics material can be considered as suitable?*

No. Suitable plastics material can be virgin or recycled plastics material and shall fulfil the respective requirements for each packaging as currently required by the UN Model Regulations.

- *Depending on what is defined to be “suitable plastics material”, is it deemed necessary to revise what is to be understood as “recycled plastics material”?*

No. The definition of “recycled plastic material” should only be revised with regard to the testing of the packagings made of recycled plastics material.

- *Is solely a performance based approach on the basis of prototype-testing sufficient to determine whether recycled plastics material is suitable? Or, should criteria on the source material be included to determine this?*

As already stated, the performance-based approach is sufficient, as manufacturers ensure through the quality assurance (QA) programme that the properties present at the design type approval of the packaging are also consistent with those of the packaging subsequently produced. This includes the properties of the recycled material as well as, for example, the correct setting of the production lines. The QA programme is also approved by the competent authority. The approval test is performed already with recycled plastic material and not with virgin material!

- *Should all types of plastics packaging for dangerous goods be considered equal as far as concerns the use of recycled material or is an approach based on the type of packaging preferred? Additionally, is an approach preferred based on the contents these packagings are intended to hold (e.g. solid vs. liquid contents)?*

As already mentioned, there are different requirements that determine the method and scope of the design type test, depending on whether liquids or solids are to be transported. This distinction is also sufficient when using recycled plastics material.

- *Is it necessary that all packaging made from recycled plastics material be marked to distinguish them from packaging made from virgin material?*

For packaging authorized to be made of suitable plastic material which may include recycled plastics, there is no readily apparent need for additional marking from a transport safety perspective. However, all packaging should be correctly marked with the material from which it is made.

- *Should the more generalized use of recycled plastics for the manufacture of packagings intended for international transport of dangerous goods be regulated in the Model Regulations? Or, should this be left to the responsibility of the different competent authorities?*

We consider the current general approach to be sufficient, while bearing in mind the need to streamline existing requirements in the light of safety record of packagings made from recycled plastics and to improve the cost effectiveness of recycling.