



**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****Fifty-sixth session**

Geneva, 2-11 December 2019

Item 3 of the provisional agenda

Listing, classification and packing**Special Provision for UN 1013, carbon dioxide****Transmitted by the Council on Safe Transportation of
Hazardous Articles (COSTHA)*****Introduction**

1. During the fifty-third and fifty-fourth sessions of the Sub-Committee, EIGA submitted proposals (see ST/SG/AC.10/C.3/2018/16 and ST/SG/AC.10/C.3/2018/71) to incorporate Special Provision 653 from the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) in the Model Regulations. The proposals were not adopted for a number of reasons including the fact that some members indicated that they were not in favor of applying the alternative hazard communication markings for air transport. Some delegates suggested that cylinders should be leak-tested prior to transport. Others suggested that the limited quantity provisions for non-flammable, non-toxic gases could be revised to allow for more than 120 ml of gas to be transported as limited quantities. We are not opposed to considering amending the limited quantity provisions for Division 2.2 gases but realize that this will take some time and are submitting this proposal as an interim measure recognizing that it is consistent with the provisions of ADR SP 653 that have been in place for more than ten years.

* In accordance with the programme of work of the Sub-Committee for 2019–2020 approved by the Committee at its ninth session (see ST/SG/AC.10/C.3/108, paragraph 141 and ST/SG/AC.10/46, paragraph 14).

2. Since the Sub-Committee considered the EIGA papers both, the United States of America and Canada, have issued approvals¹ to authorize the alternative marking in ADR SP 653 for UN 1013 and the Israeli competent authority has authorized the alternative marking on packages containing small CO₂ cylinders offered for transport by sea when in cargo transport units that are placarded and marked according to the IMDG Code. COSTHA is also aware that while the SP 653 exception is recognized by all parties signatory to the ADR shipping packages marked accordingly to SP 653 by sea between signatories is not possible and has resulted in supply chain burdens and expense (e.g. repackaging and marking). Considering that the alternative package marking is becoming more widely accepted at least for UN 1013, COSTHA is submitting this paper to add a special provision for UN 1013 for the Sub-Committee to reconsider. At least one COSTHA member is in the business of manufacturing and shipping gas cylinders containing Carbon Dioxide, UN 1013 for use by consumers to carbonate drinking water which promotes environmental sustainability by offering an alternative that replaces thousands of single-use plastic bottles.

3. This paper is proposing to include a special provision that authorizes an exception similar to that in SP 653 for UN 1013. The proposed special provision takes into account previous comments and suggestions related to the EIGA papers as well as conditions imposed in the United States and Canadian approvals. This proposal also takes account of the paper recently submitted and adopted by the Joint Meeting from Switzerland to amend SP 653 relating to the filling of the cylinders addressed in SP 653.

4. SP 653 affords a rational and safe exception that should be included in the Model Regulations to allow it to be used for transport globally. It is proposed that the following new special provision be included in the Model Regulations for UN 1013:

In the Dangerous Goods List apply SP XYZ to the entry for UN1013, Carbon Dioxide.

In Chapter 3.3 include a new special provision XYZ as follows:

“XYZ Except when transported by air, gas cylinders with a water capacity less than 1 liter containing Carbon Dioxide, UN 1013 are not subject to the other provisions of these Model Regulations if the following conditions are met:

The provisions for construction and testing of cylinders are observed;

The special packing provisions for goods of Class 2 in 4.1.6 are met;

The cylinders are inspected prior to filling, filled in accordance with the filling limits in P200 and are leak tested after filling;

The cylinders are contained in outer packagings which meet the general provisions of packing of 4.1.1.1, 4.1.1.2 and 4.1.1.5 to 4.1.1.7;

The outer package must include instructions for closing the package to ensure that the general packaging requirements are met;

The cylinders are not packed together with other dangerous goods;

The total gross mass of a package does not exceed 30 kg; and

Each package is clearly and durably marked as follows:

¹ Referred to as special permits in the US and Equivalency Certificates in Canada

Carbon dioxide, Division 2.2



The mark illustrated above must be displayed as a square-on-point, surrounded by a line that measures at least 100 mm by 100 mm on each side, except for packages that are not of sufficient size to accommodate the 100 mm by 100 mm mark in which case the mark may be reduced to 30 mm by 30 mm on each side;

Persons preparing and transporting shipments according to this special provision shall be knowledgeable about the applicable requirements of this special provision.”
