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**Economic Commission for Europe****Inland Transport Committee****Working Party on the Transport of Dangerous Goods**

**Joint Meeting of the RID Committee of Experts and the  
Working Party on the Transport of Dangerous Goods**

Geneva, 17–21 September 2018

Item 5 (b) of the provisional agenda

**Proposals for amendments to RID/ADR/ADN:  
new proposals**

**Display packs of limited quantities**

**Transmitted by the Council on Safe Transportation of Hazardous Articles  
(COSTHA)\*,\*\***

*Summary*

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| <b>Executive summary:</b>  | The aim of this proposal is to allow the use of display packs with a maximum gross mass not exceeding 550 kg within the ADR, in alignment with the United States of America's Hazardous Materials Regulations (49 CFR). One of the main advantages is a reduction of the amount of packaging used. |
| <b>Action to be taken:</b> | Amend the text in Chapter 3.4 of ADR to allow the use of display packs of limited quantity packages intended for retail distribution with a maximum gross mass per display pack not exceeding 550 kg.  |
| <b>Related documents:</b>  | INF.46 – Display packs of limited quantities (COSTHA) (Spring 2018 Session – Joint Meeting RID/ADR/ADN).   |

\* In accordance with the programme of work of the Inland Transport Committee for 2018-2019, (ECE/TRANS/2018/21/Add.1, Cluster 9, (9.2)).

\*\* Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2018/21.



## Introduction

1. Many consumer products meet the classification criteria for one of the nine hazard classes. Due to the limited amount of material contained in the consumer packaging, they are eligible for transport by road as a limited quantity when contained in an outer packaging that does not exceed a gross mass of 30 kg (3.4.2 of ADR).
2. The packaging requirements in 3.4.3 of ADR permit the use of inner packagings packed in strong outer packagings. Eligible packaging exceptions are provided for shrink-wrapped trays that do not exceed 20 kg.
3. However, many retail locations are foregoing the traditional shelf-displays of individual consumer products and are introducing “display packs” of products. Such display packs are pre-built before distribution. They are “opened” and placed directly on the store floor as a display.
4. The advantages of display packs include a reduction in the amount of packaging necessary for distribution (less fibreboard waste), a reduction in the space required on shelves, reduced labour needed for restocking shelves, and reduced handling of packages.
5. The current provisions in 3.4.2 and 3.4.3 of ADR preclude the use of display packs for limited quantity packages due to the gross mass of the display which may exceed 500 kg.
6. In the United States of America, provisions for display packs have been adopted into the regulations (49 CFR, § 173.156 (c)) or authorized through exemptions. Such display packs are subject to the following requirements:
  - “(c) *Display packs*. Display packs (...) of consumer commodities or limited quantity packages that exceed 30 kg gross weight limitation may be transported by container/trailer in trailer-on-flatcar (TOFC) or container-on-flat-car (COFC) service, roadtrailer and/or railrunner trailers, motor vehicle, or cargo vessel under the following conditions:
    - (1) *Packaging*. Combination packages must conform to the [general packaging] requirements of subpart B of this part and meet the following, as appropriate:
      - (i) Primary containers must conform to the quantity limits for inner packagings prescribed in [for the representative hazard class];
      - (ii) Primary containers must be packed into trays that secure individual containers from shifting inside the completed combination package during transportation;
      - (iii) Tray(s) must be placed into a fibreboard box, and the fibreboard box must be banded and secured to a pallet by metal, fabric, or plastic straps to form a single palletized unit; and
      - (iv) The maximum net quantity of hazardous material permitted in one palletized unit is 550 kg (1,210 lbs.).
    - (2) *Marking*. The outside of each package must be plainly and durably marked in accordance with one of the following, as appropriate:
      - (i) (...)
      - (ii) As a limited quantity as prescribed in §172.315 of this subchapter.”
7. Such packages remain subject to all the other requirements that apply to dangerous goods shipped in limited quantities.

8. Display packs prepared as described above have a long safety record by road, rail, and vessel in the United States of America, which have authorized the provisions for more than 20 years.
9. COSTHA has provided additional information, including examples of such display packs, as an annex to this document.

## Proposal

10. COSTHA requests that the Joint Meeting consider the value of adopting a similar provision into Chapter 3.4 of ADR:

“[3.4.5] Display packs of limited quantity packages intended for retail distribution are excepted from the gross mass limitation of 3.4.1.2 if packed in accordance with the following provisions:

(a) Outer packagings shall meet the general requirements of 4.1.1.1, 4.1.1.2, and 4.1.1.4 through 4.1.1.8;

(b) Inner packagings shall be securely packed into trays that prevent shifting or movement of the inner packagings;

(c) Trays shall be placed into a strong outer packaging that is securely attached to a pallet through metal, plastic or fabric straps to form a palletized unit;

(d) Gross mass of the completed package shall not exceed 550 kg.”.

## Justification

- Safety: Alignment with the provisions in 49 CFR should offer an equivalent level of safety as that afforded by shipping limited quantities per the provisions already in Chapter 3.4, as evidenced by the Pipeline and Hazardous Materials Safety Administration’s (PHMSA) incorporation of special permit (SP) 11458 into the Hazardous Materials Regulations (HMR).
- Feasibility: These provisions have already been applied safely within the United States of America for more than 20 years, and allow reduced waste, costs, and handling of packages.

Annex

Examples of display packs

To meet growing retail customer demands, some of our members offer a wide range of “display-ready” stock keeping units to retailers. Such units reduce the retailer’s labour, handling and set-up costs, reduce the need to restock product, and increase impulse purchases by shoppers. Several examples are shown below.

<p><b><u>Floor Display</u></b></p> 	<p><b><u>Shelf-Ready “PDQ” Package</u></b></p> <p><i>as shipped</i></p>  <p><i>as opened</i></p>  <p><i>as seen on shelf</i></p> 	<p><b><u>Display-Ready Quarter Pallet</u></b></p> 
<p><b><u>Display-Ready Half Pallet</u></b></p> 	<p><b><u>Display-Ready Full Pallet</u></b></p> 	

Any consumer products can be part of a display-ready pack, including products that are classified and regulated as hazardous materials / dangerous goods. Examples of dangerous goods regulated products manufactured by some of our members are shown below.

Types of dangerous goods	Examples
Flammable and non-flammable aerosols (metal and plastic cans)	Air fresheners, hair sprays, shave foams, Antiperspirants
Flammable liquids (glass and plastic containers)	Hair styling products, aftershaves, skin toners, cosmetics
Flammable solids	deodorant sticks
Oxidizers	Laundry additives
Corrosives	Auto-dishwashing gels, laundry additives
Lithium battery-powered devices	Rechargeable shavers and toothbrushes
Environmentally hazardous Substances	Disinfectants, Anti-dandruff shampoos, air fresheners

When a display-ready pack contains dangerous goods-regulated products and exceeds 30 kg gross weight, it is shipped under the conditions of 49 CFR 173.156(c) [Note: In February 2016, PHMSA incorporated multiple, long-standing Special Permits into the HMR. The provisions of special permit 11458 were included as §173.156(c)]. The specific requirements for shipping display packs under this section are:

1. Inner packages must meet the requirements for Limited Quantities
2. Products are packed in trays to secure the individual containers from shifting
3. The trays are stacked and covered with a fibreboard box that is banded to the pallet by metal, fabric, or plastic straps to form a single, palletized unit.
4. The maximum net quantity of hazardous material in any palletized unit is 550 kg.
5. The outside of the fibreboard box is marked with the Limited Quantity mark.



*Example of a finished display pack constructed per the requirements of §173.156(c)*

The transportation of limited quantities in the above-described display packs in the United States of America. has provided an equivalent level of safety as that afforded by shipping limited quantities per the provisions §173.150-155 and §173.306, as evidenced by PHMSA's incorporation of SP-11458 into the HMR. Likewise, our member has not experienced any packaging failure issues with these display packs since 2002 when it was first granted party status to SP-11458.

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