

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

27 June 2014

**Sub-Committee of Experts on the
Transport of Dangerous Goods**

Forty-fifth session

Geneva, 23 June – 2 July 2014

Item 3 of the provisional agenda

**Global Harmonization of the Model Regulations
on the Transport of Dangerous Goods**

**Assignment of flammable liquids in packing group II to
packing group III according to their viscosity – Clarification
of the Kinematic Viscosity Criteria in 2.3.2.2**

Transmitted by the International Paint & Printing Ink Council (IPPIC)

1. Based on discussions with experts regarding the table in 2.3.2.2., the criteria for kinematic viscosity are clarified. The kinematic viscosity criteria is proposed to be harmonized with the criteria recently adopted by the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods at the Spring 2014 session.

2. During discussion in the plenary, it was suggested that the flashpoint in the final row of the table should be “-5 and below” in order to be harmonized with criteria in the 2013 ADR. However, this language was changed to “no limit” in order to harmonize with the UN Model Regulation as documented in the report above.

3. See the report at:

<http://www.unece.org/fileadmin/DAM/trans/doc/2014/dgwp15ac1/ECE-TRANS-WP15-AC1-134a2e.pdf>

Proposal

In 2.3.2.2, amend point (a) to read as follows:

- (a) The viscosity¹ ~~expressed as the flowtime in seconds~~ and flash-point are in accordance with the following table:

Kinematic viscosity (extrapolated) v (at near-zero shear rate) mm ² /s at 23°C	Flow-time t in seconds	Jet diameter (mm)	Flash-point, closed-cup (°C)
20 < v ≤ 80	20 < t ≤ 60	4	above 17
80 < v ≤ 135	60 < t ≤ 100	4	above 10
135 < v ≤ 220	20 < t ≤ 32	6	above 5
220 < v ≤ 300	32 < t ≤ 44	6	above -1
300 < v ≤ 700	44 < t ≤ 100	6	above -5
700 < v	100 < t	6	no limit

Insert footnote 1 as follows:

¹ Viscosity determination: Where the substance concerned is non-Newtonian, or where a flow-cup method of viscosity determination is otherwise unsuitable, a variable shear-rate viscometer shall be used to determine the dynamic viscosity coefficient of the substance, at 23°C, at a number of shear rates. The values obtained are plotted against shear rate and then extrapolated to zero shear rate. The dynamic viscosity thus obtained, divided by the density, gives the apparent kinematic viscosity at near-zero shear rate.

As a consequential amendment, re-number footnote 1 in 2.3.4 (Determination of initial boiling point) as footnote 2.