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|  |  | **UN/SCETDG/50/INF.27** |

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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 16 November 2016** | |
| **Sub-Committee of Experts on the Transport of Dangerous Goods** | |
| **Fiftieth session** |  |
| Geneva, 27 November–6 December 2016  Item 2(a) of the provisional agenda  **Recommendations made by the Sub-Committee on its forty-seventh, forty-eighth and forty-ninth sessions and pending issues: review of draft amendments already adopted during the biennium** |  |

Comments on UN/SCETDG/49/INF.54 Clarification relating to the test method for readily combustible solids (UN Test N.1)

Transmitted by the expert from Germany

**Introduction**

1. This paper is a follow-up to the discussions on the working paper ST/SG/AC.10/C.3/2016/5 and the informal papers UN/SCETDG/48/INF.42 and UN/SCETDG/49/INF.54 on the test method for readily combustible solids (UN-Test N.1).
2. The discussions were focused on the question whether the “whole length of the sample” in 33.2.1.4.4.1 (last sentence) refers to:
3. The 250 mm length specified for the mould; or
4. The 100 mm length (“timing zone”) over which the rate of burning is measured.
5. In informal document INF.54 (49th session) it was concluded that the100 mm timing zone would be the correct length, in particular for the reason that in this case the criteria for the screening test and the main test are identical with a limit of 10 mm /min for metals. Substances burning with a higher burning rate should be classified as flammable solids. The sub-committee decided to adopt the amendments proposed for 33.2.1.4.4.1, 33.2.1.4.4.2 and 333.2.1.4.4.3 of the Manual of Tests and Criteria in square brackets.
6. Germany supported the amendments at the last session. However, after further discussions between experts it seems that a further review is necessary. If the criteria for screening and main test are identical, the function of the screening test is questionable. .
7. Comparing the two different criteria for metals and non-metals the following can be stated:

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|  | Non-Metals | Metals | |
| Preliminary testing | **200 mm length** | | |
|  | < 2min proceed testing  **br > 100 mm/min** proceed testing | < 20 min proceed testing  **br > 10 mm/min** proceed testing | |
| Full test | **100 mm length** | **100 mm length** | **250 mm length** |
| PG III | < 45 s  **br > 133.3 mm/min**  and wetted zone stops propagation for 4 min | < 10 min  **br > 10 mm/min** | < 10 min  **br > 25 mm/min** |
| PG II | wetted zone passed in 4 min | < 5 min  **br > 20 mm/min** | < 5 min  **br > 50 mm/min** |

**Table 1. Test method criteria for non-metals and metals for both measuring length**

The criteria for non-metals are not questionable, but for metals further clarification is necessary.

An example illustrates the problem:

**Non-metals**

- Example: non-metals with a br of 100-133.3 mm/min in the preliminary testing will not be division 4.1 after the full test.

- For non-metals a PG III substance needs a higher br in the full test (>133.3 mm/min).

- The criteria for preliminary testing are not identical with the full test.

**For metals: 100 mm length criteria**

- Criteria for preliminary test and full test are equal for classification of PG III.

- Preliminary testing could also be used for classification!

**For metals 250 mm length criteria**

- Metals with a br of 10 to 25 mm/min in the preliminary testing will not be division 4.1.

- A PG III metal needs a higher br than in the preliminary testing which is more consistent to non-metals criteria!

**Proposal**

1. The expert of Germany is of the opinion that further work is needed on this topic and invites interested delegations to report their experience with this method/criteria.

7. It is proposed to place this topic onto the work plan for discussion during the next biennium. Furthermore, the preliminary adopted amendments to 33.2.1.4.4.1, 33.2.1.4.4.2 and 333.2.1.4.4.3 of the Manual of Tests and Criteria (see ST/SG/AC.10/C.3/2016/55 – Consolidated list of adopted texts) should be deleted from list of draft amendments to the sixth revised edition of the Manual of Tests und Criteria.

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