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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****Sub-Committee of Experts on the Transport  
of Dangerous Goods****Sub-Committee of Experts on the Globally Harmonized  
System of Classification and Labelling of Chemicals****Forty-eight session****Thirtieth session**

Geneva, 30 November – 9 December 2015

Geneva, 9–11 December 2015

Item 10 (g) of the provisional agenda

Item 2 (a) of the provisional agenda

**Issues relating to the Globally Harmonized System of Joint work with the Sub-Committee of Experts on the  
Classification and Labelling of Chemicals: use of the Transport of Dangerous Goods  
Manual of Tests and Criteria in the  
context of the GHS****Use of the Manual of Tests and Criteria in the context of the  
GHS****Transmitted by the Chairman of the Working Group on Explosives<sup>1</sup>****Introduction**

1. At the forty-fifth session the secretariat documents ST/SG/AC.10/C.3/2014/61 and informal document INF.8 and Adds. 1–5 were discussed together with IMEs document INF.35. It was agreed at that session that: "... a sixth revised edition of the Manual should be published in 2015 ... A seventh revised edition could be published in 2017, with the editorial changes deemed necessary to facilitate the use of the Manual in the context of the GHS" (see ST/SG/AC.10/C.3/90, paragraph 37).

2. At the forty-seventh session the Working Group on Explosives had a look at informal document INF.8 (and addenda) to review the issue of substance/mixture and to return with suggestions for simplification and to identify when it would be necessary to use both terms. The same applied to the reference to sectors; when is it appropriate and when such reference is inappropriate. The Chairman of the Working Group and SAAMI would

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<sup>1</sup> In accordance with the programme of work of the Sub-Committee for 2015–2016 approved by the Committee at its seventh session (see ST/SG/AC.10/C.3/92, paragraph 95 and ST/SG/AC.10/42, para. 15)

work on the review for Part I and the Introduction and Germany and CEFIC would review Part II. This review should be completed within two months (see informal document INF.53 (47<sup>th</sup> session), paragraph 21).

3. SAAMI and the Chairman of the Working Group performed the review of Part I and the Introduction through email correspondence. Germany, CEFIC and the Chairman had a meeting in Berlin on 7 August 2015 to review Part II and, on a more general level, Part III. The result of the work will eventually be reflected in the new version of informal document INF.8 and addenda, based on the sixth revised edition of the Manual.

4. It was agreed to submit a paper in which general principles are proposed. Once these principles are discussed and decided upon, the actual review of the Manual would be much more simple. The principles are given in the next paragraphs.

## General principles

5. With regard to adding the word “mixture”, the reviewers propose the following solution. Simply replacing the word “substance” by “substance and mixture” means more than a thousand replacements. This would certainly not improve the readability of the Manual. For the purposes of the Manual substances and mixtures would be dealt with in exactly the same way. The same tests, descriptions and criteria apply. This implies that there is no reason to explicitly mention mixtures. Furthermore, a number of existing definitions currently state that mixtures are included in the definition, e.g. explosive substance and flammable liquids (2.1.1.3 (a) and 2.3.1.2 of the Model regulations). It is proposed to insert a statement in paragraph 1.1.1 of the Manual (where the term ‘substance’ appears for the first time) reading: *“The term substance in this Manual includes both substances and mixtures, unless otherwise stated.”*

Parallel to this solution the term “explosives” instead of “explosive substances[, mixtures] and articles” can be used. This is a generally known term and is also used in GHS Chapter 2.1

Similarly the term “self-reactives” can be used in Part II and “oxidisers” in Part III. If these descriptions are accepted this will have consequential changes in the titles of Chapters 2.8 (Self-reactives), 2.13 (Liquid oxidisers) and 2.14 (Solid oxidisers) of the GHS document.

6. It is obvious that the Manual was written in the context of transport. That appears in several forms at several places. For instance:

- A. *“If a mixture can separate out during transport, the test...”*;
- B. *“The density should be as close as possible to the shipping density.” and*
- C. *“... A new product is offered for transport”*

When the Manual was drafted, the only intended use was transport. It is recommended not to refer to the sector for which the classification is done; so use the phrase: “... to arrive at a proper classification.” instead of: “... to arrive at a proper classification for transport, storage, supply and use.”

The classification procedure itself is independent of the eventual sector. At this moment there are no indications that the criteria need to be different for different sectors. Currently this is not part of the mandate.

Regarding A.: this is easily solved by just taking out the words “during transport” without changing the intention of the statement.

The phrase reflected in B. can be left out of the test description as earlier proposed in informal document INF.4 (45<sup>th</sup> session) and was accepted and included in the sixth revised edition of the Manual.

The difficulty is to find a correct description to address C. A general discussion to find acceptable wording is proposed. It should be stressed that including that the test should be performed for all circumstance may lead to a disproportional increase in the number of tests.

7. In the drafts from the secretariat informal documents INF.8 (45<sup>th</sup> session) and INF.5 (27<sup>th</sup> session) the terms “*Explosives of Class 1*” or “*Self-reactive substances of Division 4.1*” etc were changed to “*Explosives (Transport Class 1)*” and “*Self-reactive substances (Transport Division 4.1)*”. The reviewers collectively felt that it is not necessary to refer to the transport classes and divisions since the users of the Manual know the transport classes. This change would also increase readability of the Manual.

8. It is proposed to replace the flow charts that are currently included in the Manual by those included in the GHS document. The GHS versions have the more general descriptions and exit boxes so they are applicable to all regulatory purposes.

Transport specific remarks, as included in the exit boxes of the flow charts for organic peroxides and self-reactives, could be added as a separate paragraph or notes.

9. In informal documents INF.8 (45<sup>th</sup> session), INF.5 (27<sup>th</sup> session) the secretariat proposed text to be added to paragraph 10.4.1.1 addressing how to deal with different physical states and when additional testing is required.

This is an excellent phrase, but can perhaps be transferred to the more general part of the Manual as a new 1.5.3 (and renumber the existing 1.5.3 and 1.5.4). This would read: “*If, for example, for the purposes of supply or transport, the same substance or mixture is to be presented in a physical form different from that which was tested and which is considered likely to materially alter its performance in a classification test, the substance or mixture must also be tested in the new form.*”

10. In Part III the criteria and examples of results of several Chapters currently include the term Packing Group. This is of course only applicable to transport, GHS uses the term Category. Again for the purposes of readability the better solution might be to make clear, in a general statement, that the term “Category” refers to GHS and the term ‘Packing Group’ (or ‘PG’) refers to transport. See for instance the proposed text in paragraph 33.3.1.5.4 and 33.3.1.5.5 in informal documents INF.8/Add.4 (45<sup>th</sup> session) and INF.5/Add.4 (27<sup>th</sup> session).

That text would then read: “*...to be pyrophoric and should be classified in Category 1 / PGI.*”

## **Proposal**

11. It is proposed to discuss this document and decide on the issues outlined above in both sub-committees and in the Working Group on Explosives.

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