



**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-fourth session**

Geneva, 26 November–4 December 2018

Item 7 (e) of the provisional agenda

**Issues relating to the Globally Harmonized System
of Classification and Labelling of Chemicals:
miscellaneous****Sub-Committee of Experts on the Globally Harmonized
System of Classification and Labelling of Chemicals****Thirty-sixth session**

Geneva, 5–7 December 2018

Item 8 of the provisional agenda

Programme of work for the biennium 2019–2020**Suggested terms of reference and description of work for
combinations of physical hazards****Transmitted by the expert from Germany***

1. Reference is made to informal documents INF.8 (GHS thirty-fourth session), INF.13 (GHS thirty-fifth session) and INF.20 (TDG fifty-third session), respectively in which the expert from Germany presented the question which combinations of physical hazards are possible and relevant when classifying a chemical according to the GHS.
2. The documents were welcomed by the TDG and GHS sub-committees at their fifty-third and thirty-fifth 2018 sessions respectively and the expert from Germany was requested to return to the next sessions with refined terms of reference and a clearer work description considering the comments made.
3. The expert from Germany in addition would like to add some information and arguments in favor of this work as follows:
 - (a) The intention of the work is to explore which combinations of physical hazards are relevant for classification and hazard communication and which are not. For example, Aerosols (Chapter 2.3) are not additionally classified as flammable liquids or gases under pressure even though they might fulfill the criteria for these classifications.

* In accordance with the programme of work of the Sub-Committee for 2017–2018 approved by the Committee at its eighth session (see ST/SG/AC.10/C.3/100, paragraph 98 and ST/SG/AC.10/44, para. 14).

- (b) In some cases, it might not be possible to perform classification tests. Safety aspects can play a role, for example, it could be dangerous to submit a substance that is known to be explosive to the classification test for corrosive to metals (which requires heating of the substance to 55 °C for over a week). In our view, classifiers and testing organisations should be supported in how to proceed in such cases e.g. with regard to whether and how classification is warranted.
 - (c) Harmonizing the principles as to which classification combinations are relevant and should be considered could support the goal of achieving more consistent physical hazard classifications of chemicals.
 - (d) The classification procedure for physical hazards might become more efficient and unnecessary testing might be reduced if an overall testing approach can be provided considering relevant classifications only.
4. As the tests for physical hazards classification in the GHS are the same as for transport classification, the work could be of direct interest also to the TDG Sub-Committee (not only as focal point for physical hazards). The vast experience in transport classification and associated testing strategies could serve as valuable input to the work, and experts from the TDG Sub-Committee are hence encouraged to participate actively should this GHS work be taken up.
5. It is proposed to add combinations of physical hazards to the GHS program of work for the upcoming biennium (realizing that it might take more than one biennium due to the complexity of the issue). If deemed appropriate by the TDG and GHS sub-committees, the work could be handled by a correspondence group. In that case, the expert from Germany would be willing to lead that correspondence group.
6. Terms of reference are proposed as outlined below. This proposal also suggests splitting the work into smaller tasks. The TDG and GHS sub-committees are requested to consider the above information and proposal as well as the suggested terms of reference.

Terms of Reference

Systematically analyse the physical hazard classes in the GHS with regard to the relevance of simultaneous classification and analyse whether a precedence of hazards considering the relevant combinations would be appropriate for the GHS.

Task 1:

Analyse systematically all combinations of physical hazard classes with regard to their simultaneous assignment to a chemical. This task could be performed in a stepwise approach:

- 1.1 Clarify for which combinations simultaneous assignment is not possible based on the physical state.
- 1.2 Clarify for which combinations simultaneous assignment is not possible based on explicit information in the GHS.
- 1.3 Work out further criteria/principles that can be used to analyse the remaining combinations regarding simultaneous assignment, taking into account e.g. safety of testing personnel, limitations with regard to conduct and interpretation of test results, redundancy of hazard communication etc.
- 1.4 Apply the criteria from task 1.3 to the remaining combinations of hazard classes and clarify which combinations of physical hazards are relevant and which are not.

Task 2:

Check the precedence of hazards of the Model Regulations as to whether it can be used for the purposes of the GHS and whether it is in line with the results according to Task 1.

Task 3:

- 3.1 Taking into account the results of tasks 1 and 2, decide whether and how a systematic approach for combinations of physical hazards can be developed for the GHS.
 - 3.2 Decide how provisions/information could or should be added to the GHS, e.g. as guidance and/or within the individual hazard classes and propose amendments to the GHS, as appropriate.
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