



**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****Sixty-fourth session**

Geneva, 24 June-3 July 2024

Item 10 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****Forty-sixth session**

Geneva, 3-5 July 2024

Item 2 (j) of the provisional agenda

**Work on the Globally Harmonized System of
Classification and Labelling of Chemicals:****Other matters****Consideration of amendments to chapter 2.17 (Desensitized
explosives) of the Globally Harmonized System and section 51
of the Manual of Tests and Criteria****Transmitted by the Australasian Explosives Industry Safety Group Inc.
(AEISG)*****I. Background**

1. At its forty-third session, the Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS Sub-Committee) adopted changes to chapter 2.17 (Desensitized explosives) of the GHS as proposed in document ST/SG/AC.10/C.4/2022/10 from Germany and the United States of America, with amendments as outlined in document INF.35 from Germany, the United States of America and the United Kingdom. The GHS Sub-Committee adopted some additional consequential editorial corrections as outlined in annex I of the report on its forty-third session (ST/SG/AC.10/C.4/86). The GHS Sub-Committee also took note of the relevant discussions by the Sub-Committee of Experts on the Transport of Dangerous Goods (TDG Sub-Committee) on this topic, including the adoption of the amendments to section 51 of the Manual of Tests and Criteria (see report of the TDG Sub-Committee on its sixty-first session ST/SG/AC.10/C.3/122, paragraph 70 and annex II).

2. While AEISG supported the proposed changes, it raised a number of issues of potential confusion or unintended consequences (as detailed in informal document INF.12 (GHS Sub-Committee, forty-third session) - INF.20 (TDG Sub-Committee, sixty-first session). AEISG took note of the invitation by the Chairperson of the Explosives Working Group to address issues raised in its submission in the following (current) biennium (see report ST/SG/AC.10/C.4/86, paragraphs 28 and 29).

* A/78/6 (Sect. 20), table 20.5.



3. At the sixty-second session of the TDG Sub-Committee and the forty-fourth session of the GHS Sub-Committee, AEISG addressed these issues in document ST/SG/AC.10/C.3/2023/17–ST/SG/AC.10/C.4/2023/3, which offered three proposals for consideration by the sub-committees.

4. The AEISG proposals were discussed by the Explosives Working Group (EWG) during the sixty-second session of the TDG Sub-Committee. As noted in its report the EWG recommended acceptance of two of the AEISG proposals (see informal document INF.47 from that session, section 11 and amendment 3 in Annex 2 to that document) but could not reach consensus on the third one on the perceived inconsistencies in the classification of explosives. The EWG recommendation was subsequently referred to the GHS Sub-Committee at its forty-fourth session (refer to informal document INF.22, item 3). The GHS Sub-Committee noted the outcome of the discussions on this topic by the TDG sub-Committee and concurred with its decisions (see report ST/SG/AC.10/C.4/88, paragraphs 10 and 11). AEISG volunteered to revise its proposal for a following session, having regard to the comments received.

II. Inconsistent classification of explosives

5. Chapter 2.17 of the GHS and the associated section 51 of the Manual of Tests and Criteria seek to classify products as desensitised explosives for GHS purposes and to use the burning rate test (external fire) to place such products into one of four categories.

6. However, as currently written, both chapter 2.17 of the GHS (see note to 2.17.2.2) and section 51 of the Manual of Tests and Criteria (see 51.4.4.3 and 51.4.4.5) declare products to be in the class of explosives despite the relevant criteria (including the burning rate test) not being part of the explosives classification process nor even referenced in part 1 of the Manual of Tests and Criteria which classifies explosives.

7. AEISG believes this creates confusion as to the correct classification process for explosives by creating an inconsistency between chapters 2.1 of the GHS (substance is excluded from the class of explosives if it passes test series 2 – refer to 2.1.1.2.2(c) (iv)) and chapter 2.17 of the GHS (substance is classified as explosives even though it passes test series 2 and has a corrected burning rate greater than 1200 kg/min – refer to 2.17.2.2 (b) (iii), 2.17.2.2 (c) and note).

8. Further, AEISG believes an inconsistency now exists between section 51 of the Manual of Tests and Criteria (substances declared to be in the class of explosives based on its performance in the burning rate test – refer to 51.4.4.3 and 51.4.4.5) and part 1 of the Manual of Tests and Criteria which classifies explosives without reference to a substance's burning rate.

9. This perceived inconsistency could be overcome by slight rewording of the note to section 2.17.2 of chapter 2.17 of the GHS and to sections 51.4.4.3 and 51.4.4.5 of the Manual of Tests and Criteria to bring the wording into line with decision logic 2.17.1 for desensitised explosives outlined in 2.17.4.1 of chapter 2.17 of the GHS.

III. Proposals

10. Proposed amendments to chapter 2.17 of the GHS

2.17.2.2 Amend the note as follows (*new text is underlined; deleted text is ~~struck through~~*):

“NOTE: Phlegmatized explosives which do not meet the criteria of 2.17.2.2 are not classified as desensitized explosives and should be classified in accordance with chapter 2.1. as explosives (see chapter 2.1).”

11. Proposed amendments to section 51 of the Manual of Tests and Criteria (*new text is underlined; deleted text is struck through*)

51.4.4.3 Amend as follows:

“51.4.4.3 If a mass explosion or individual explosions or metallic projections (fragments) occur, the substance or mixture is not classified as a desensitized explosive and should be classified in accordance with chapter 2.1 of the GHS in the hazard class “explosives”.”

51.4.4.5 Amend the last sentence as follows:

“Any substance or mixture with a corrected burning rate greater than 1200 kg/min is not classified as a desensitized explosive and should be classified in accordance with an explosive (See chapter 2.1 of the GHS).”
