



**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****Forty-ninth session**

Geneva, 27 June – 6 July 2016

Item 10 (i) 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-first session**

Geneva, 5-8 July 2016

Item 3 (f) of the provisional agenda

**Classification criteria and related hazard
communication: miscellaneous****Clarification of the classification criteria for desensitised
explosives in GHS****Transmitted by the Australian Explosives Industry and Safety Group
(AEISG) and the Sporting Arms & Ammunition Manufacturers'
Institute (SAAMI)¹**

Note by AEISG and SAAMI: Although this proposal is mainly intended for the GHS Sub-Committee, it is suggested that it should first be reviewed by the Working Group on Explosives of the TDG Sub-Committee.

Introduction

1. A new Chapter 2.17 covering Desensitised Explosives was added in the sixth revised edition of the GHS.
2. Section 2.17.2 of the GHS currently states:

2.17.2 Classification criteria

¹ In accordance with the programme of work of the subcommittees for 2015–2016 approved by the Committee at its seventh session (see ST/SG/AC.10/C.3/92, paragraph 95, ST/SG/AC.10/C.4/60, annex III and ST/SG/AC.10/42, para. 15).

- 2.17.2.1 Any explosive which is desensitized shall be considered in this class, unless:
- (a) It is manufactured with the view to producing a practical, explosive or pyrotechnic effect; or
 - (b) It has a mass explosion hazard according to test series 6 (a) or 6 (b) or their corrected burning rate according to the burning rate test described in part V, subsection 51.4 of the *United Nations Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria* is greater than 1200kg/min; or
 - (c) Their exothermic decomposition energy is less than 300J/g.

NOTE 1: Substances or mixtures which meet the criterion (a) or (b) shall be classified as explosives, see chapter 2.1. Substances or mixtures which meet the criterion (c) may fall within the scope of other physical hazard classes.

NOTE 2: The exothermic decomposition energy may be estimated using a suitable calorimetric technique (see section 20, sub-section 20.3.3.3 in Part II of the United Nations Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria).

Discussion

3. Varying interpretations of this paragraph have been experienced by industry, with some regulatory authorities believing that the criteria (a), (b) and (c) above refer to the explosive in its non-desensitized state. For example, paragraph (a) has been interpreted that wet TNT (UN 1356) that meets the test criteria must nevertheless be classified as an explosive because the intent is to later remove the desensitizer and use the material as an explosive. The same potential for misinterpretation also applies to paragraphs (b) and (c).

4. Last December the Working Group on Explosives of the TDG Sub-Committee met in formal and informal sessions to discuss the review of GHS Chapter 2.1 (refer Report of the Working Group on Explosives, informal document INF.53 (TDG Sub-Committee, 48th session)). The issue of interpreting section 2.17.2.1 was raised by AEISG during the informal session of the Working Group on Explosives. The members of that group were of the opinion that the criteria in (a), (b) and (c) only apply to the explosive **in its desensitized state** and that the interpretation discussed above was not valid. However, there was no objection to further clarifying this section to ensure consistency of application.

5. AEISG believes this section of Chapter 2.17 of GHS should be amended, and makes the following proposal. Also, a few typographical errors were noted, where “their” should be “the”, and these have been corrected in the proposed text.

Proposal

6. It is proposed to amend 2.17.2.1 of the GHS as follows:

2.17.2 Classification criteria

- 2.17.2.1 Any explosive which is desensitized shall be considered in this class, regardless of whether it may be later re-sensitized and re-classified for explosive use, unless any of the following are true in its desensitized state:
- (a) It is manufactured with the view to producing a practical, explosive or pyrotechnic effect; or
 - (b) It has a mass explosion hazard according to test series 6 (a) or 6 (b) or ~~their~~ the corrected burning rate according to the burning rate test described in part V, subsection 51.4 of the *United Nations Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria* is greater than 1200kg/min; or
 - (c) ~~Their~~ The exothermic decomposition energy is less than 300J/g.

NOTE 1: *Substances or mixtures which meet the criterion (a) or (b) shall be classified as explosives, see chapter 2.1. Substances or mixtures which meet the criterion (c) may fall within the scope of other physical hazard classes.*

NOTE 2: *The exothermic decomposition energy may be estimated using a suitable calorimetric technique (see section 20, sub-section 20.3.3.3 in Part II of the United Nations Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria).*
