

**Committee of Experts on the Transport of Dangerous Goods  
and on the Globally Harmonized System of Classification  
and Labelling of Chemicals**

28 November 2013

**Sub-Committee of Experts on the  
Transport of Dangerous Goods**

**Forty-fourth session**

Geneva, 25 November – 4 December 2013

Item 10 (a) of the provisional agenda

**Issues relating to the Globally Harmonized  
System of Classification and Labelling of  
Chemicals: Desensitized explosives**

**Sub-Committee of Experts on the Globally Harmonized  
System of Classification and Labelling of Chemicals**

**Twenty-sixth session**

Geneva, 4 – 6 December 2013

Item 2 (a) of the provisional agenda

**Classification criteria and hazard communication  
Work of the Sub-Committee of Experts on the  
Transport of Dangerous Goods on physical hazards**

**Comments on document ST/SG/AC.10/C.3/2013/58-  
ST/SG/AC.10/C.4/2013/6: Desensitized explosives**

**Transmitted by the expert from Australia**

**Issue**

1. Australia acknowledges the extensive work undertaken by the expert from Germany, both in raising this issue and in preparing suggested text for a new chapter 2.17 in the GHS. In document ST/SG/AC.10/2005/36-ST/SG/AC.10/C.4/2005/5 the expert from Germany argued a need for appropriate communication of the hazards of desensitised explosives. In ST/SG/AC.10/C.3/2006/27-ST/SG/AC.10/C.4/2006/5 the expert from Germany proposed a new category within the GHS to deal with the special hazards associated with desensitised explosives. This proposal has been referred to Sub-Committee of Experts on the Globally Harmonized System.
2. Options for appropriately communicating the hazards of desensitised explosives were proposed in INF.65 (29th session, TDG Sub-Committee) and later in ST/SG/AC.10/C.3/58:
  - (a) Create a new chapter in Part 2 of the GHS, or
  - (b) Create a new division 1.7 (in the class of explosives in the GHS)
3. The option to create a new Division 1.7 in the class of explosives in the GHS was dismissed early on in the development of this proposal through the Explosives Working Group on the Sub-Committee on the Transport of Dangerous Goods.
4. Australia would be interested in advice as to why a third option to capture desensitised explosive mixtures in the existing category “Flammable solids” of the GHS was not considered and why potential inclusion in a new division “desensitized explosives” in the category of explosives in the GHS was rejected. It would appear to be the potential for exhibiting an explosive hazard under some conditions is the issue.
5. Australia notes that this proposed new chapter was recommended by the Chairman of the Working Group on Desensitised Explosives in ST/SG/AC.10/C.3/2008/39-ST/SG/AC.10/C.4/2008/9.
6. Australia also notes the concerns raised by the International Council of Chemical Associations (ICCA) in ST/SG/AC.10/C.3/2012/28-ST/SG/AC.10/C.4/2012/1, regarding

the inclusion of nitrocellulose products in to a new Division 1.7 (in the class of explosives in the GHS) and acknowledges the evidence provided to show that all of the industrial nitrocellulose products tested over the last 30 years have been classified as flammable solids, desensitised explosives of Division 4.1, by the Federal Institute for Material Research and Testing (BAM).

7. Australia is not convinced that a new chapter is warranted for these products. If these mixtures are of such concern that it is considered that the potential hazard needs to be communicated and a test method needs to be agreed, then these products should be managed through a division of an existing category.

8. Furthermore, the GHS currently does not provide separate chapters for specific mixtures. One of the agreed principles of harmonisation is that ‘the hazard classification process refers principally to the hazards arising from the intrinsic properties of substances and mixtures, whether natural or synthetic’.

9. The definitions provided in the GHS demonstrate that a desensitised explosive is a mixture and as such, in accordance with 1.3.3.1.1 must be tested in the desensitised state to determine any hazards presented by the mixture. Australia is concerned that proposals for other mixtures could similarly be put forward as requiring their own chapters, with the original focus on intrinsic hazards in the GHS being diluted and confused.

10. The need to appropriately and effectively communicate the intrinsic hazards of desensitised explosives is currently addressed in Note 2 beneath Table 2.1.2 in the GHS (reproduced here), which clearly states that the user should be informed of the intrinsic properties of desensitised explosives via at least Sections 2 and 9 of the Safety Data Sheet.

*“NOTE 2: Substances and mixtures, as supplied, with a positive result in Test Series 2 in Part I, Section 12, of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, which are exempted from classification as explosives (based on a negative result in Test Series 6 in Part I, Section 16 of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria,) still have explosive properties. The user should be informed of these intrinsic explosive properties because they have to be considered for handling – especially if the substance or mixture is removed from its packaging or is repackaged – and for storage. For this reason, the explosive properties of the substance or mixture should be communicated in Section 2 (Hazard identification) and Section 9 (Physical and chemical properties) of the Safety Data Sheet in accordance with Table 1.5.2, and other sections of the Safety Data Sheet, as appropriate.”*

11. Australia has examined a number of SDS which appear to be correctly applying the recommendations of this note.

12. Australia notes that in document ST/SG/AC.10/C.3/2013/58-ST/SG/AC.10/C.4/2013/6, a new burn rate test is proposed for determining desensitised explosives. It is understood that this test is based on the BAM “Determination of the 10.000kg scale burning rate” test as presented by ICCA in ST/SG/AC.10/C.3/2012/28-ST/SG/AC.10/C.4/2012. Australia seeks clarification about whether this test is suitable to capture other desensitised explosives such as water-wetted or sugar desensitised explosives and not just nitrocellulose products.

13. Australia supports the development of a new division of “desensitized explosives” in the class of explosives in the GHS. Such a division should capture all products that pass the relevant Test Series to determine “desensitized explosives”, not just for nitrocellulose products. This approach is consistent with that taken in the GHS when a division of unstable explosives” was created for explosives too dangerous to be transported. Australia does not support the introduction of a new chapter of the GHS to deal with this issue.