



**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 Globally Harmonized
System of Classification and Labelling of Chemicals****Thirty-eighth session**

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Item 3 (b) of the provisional agenda

Hazard communication:**improvement of annexes 1 to 3 and further
rationalization of precautionary statements****Corrections and amendments to Annex 3, sections 2 and 3****Transmitted by the expert from the United Kingdom on behalf of the
informal working group on improving annexes 1, 2 and 3 of the GHS***

1. At its meeting on 8 July 2019, the informal working group on the improvement of annexes 1 to 3 of the GHS discussed the following corrections and agreed to submit them to the Sub-Committee for consideration.

Serious eye damage/eye irritation

2. Chapter 3.3 details the classification criteria for substances and mixtures within the hazard class of Serious Eye Damage/Eye irritation providing the hazard categories as:

- (a) Category 1 “Serious Eye Damage/Irreversible effects on the eye”; and
- (b) Category 2 “Eye irritation/reversible effects on the eye”

3. However, in Annex 3, section 3, the tables for this hazard class (hazard categories 1, 2/A and 2B) refer to “Eye damage/irritation” which is inconsistent with the terms used in Chapter 3.3 for these hazard categories. Further, in terms of the table heading used for Category 1 it could be viewed as being misleading as it under emphasises the seriousness of this hazard category.

4. The informal working group considered that this discrepancy creates ambiguity and requires clarification.

* In accordance with the programme of work of the Sub-Committee for 2019-2020 approved by the Committee at its ninth session (see ST/SG/AC.10/46, paragraph 14 and ST/SG/AC.10/C.4/72, Annex II).

Proposed correction

5. In Annex 3, Section 3, tables for eye damage/irritation (chapter 3.3), hazard categories 1, 2/2A, 2B:

In the heading of the tables, *for* EYE DAMAGE/IRRITATION *read* SERIOUS EYE DAMAGE/EYE IRRITATION (CHAPTER 3.3)

Precautionary statement P231 for pyrophoric liquids and solids

6. At its thirty-second session (December 2016), the Sub-Committee adopted a proposal (see ST/SG/AC.10/C.4/2016/17 and ST/SG/AC.10/C.4/64) to remove the entries for pyrophoric liquids (Chapter 2.9) and pyrophoric solids (Chapter 2.10) in Table A3.2.2 (Annex 3, Section 2) from the combined statement P231 + P232 “**Handle and store contents under inert gas/...: Protect from moisture.**” because P232 was not applicable to these hazard classes and hence should not be applied to them.

7. The entries for pyrophoric liquids and pyrophoric solids were correctly deleted from the combination statement P231 + P232 in Table A3.2.2. However, the combined statement was also inadvertently deleted from the tables in Section 3 of Annex 3 for these hazard classes when P231 remains applicable and only P232 should have been deleted from the pyrophoric liquids and pyrophoric solids tables in Section 3.

Proposed correction

8. In Annex 3, Section 3, tables for pyrophoric liquids (chapter 2.9) and pyrophoric solids (chapter 2.10), under “Prevention” *insert*:

P231

Handle and store contents under inert gas/...

...Manufacturer/supplier or the competent authority to specify appropriate liquid or gas if “inert gas” is not appropriate.

Precautionary statement P230 for explosives of divisions 1.1, 1.2, 1.3 and 1.5

9. Precautionary statement P230 “**Keep wetted with...**” together with the applicable conditions for use is assigned in Table A.3.2.2 to explosives (divisions 1.1, 1.2, 1.3 and 1.5) and to these explosives in the corresponding table in Section 3.

10. The conditions for use should be consistent among the tables. However, this is not the case, as shown below (differences are underlined):

<i>P230</i>	<i>Conditions for use</i>
Table A3.2.2	<i>for substances and mixtures which are wetted, diluted, dissolved or suspended with a phlegmatizer in order to suppress their explosive properties. ...Manufacturer/supplier or competent authority to specify appropriate material.</i>
Table Section 3	<i>for substances and mixtures which are wetted, diluted, dissolved or suspended with a phlegmatizer in order to <u>reduce or suppress their explosive properties (desensitized explosives)</u>. ...Manufacturer/supplier or competent authority to specify appropriate material</i>

11. The reference to “desensitized explosives” in the tables for explosives in Section 3 seemed to be justified in the past, when the entry for P230 included desensitised explosives, before the new hazard class was introduced into GHS.

12. Now that desensitized explosives are specifically addressed in the GHS (Chapter 2.17) and that there is a separate P230 entry for desensitized explosives in Table A3.2.2, the group considered that the reference in brackets to “desensitized explosives” under the entry for P230 in the Section 3 table for explosives (divisions 1.1, 1.2, 1.3 and 1.5) was not necessary and should be deleted.

13. The working group also considered that the current “*Conditions for use*” wording for the P230 entry for explosives (divisions 1.1, 1.2, 1.3 and 1.5) in Table A3.2.2 and that provided in the associated table in Section 3 should be amended to make the entries consistent and more specific to explosives. Consequently, the group considered that the term “explosive” should be inserted before the term “substances and mixtures” and that it would be more correct to use the term “reduce” rather than “suppress” (Table A3.2.2) or “reduce or suppress” (Section 3) as the explosive properties, though reduced, will remain for substances and mixtures in this hazard class.

14. The group considered that further improved clarity could be achieved through the utilization of the wording provided in the proposal¹ by the United States of America, the Institute of Makers of Explosives (IME) and the Sporting Arms and Ammunition Manufacturers’ Institute (SAAMI) (as a part of the on-going review of Chapter 2.1 (Explosives)) to amend NOTE 2 in Section 2.1.2, without the words “Some” or “suppress or”. However, it is not necessary to have identical wording and the informal working group considered that the wording under “*Conditions for use*” for the P230 entry for explosives (divisions 1.1, 1.2, 1.3 and 1.5) in Table A3.2.2 and for the P230 entry in the associated table in Section 3 should be:

“- for explosive substances and mixtures that are diluted with solids or liquids, or wetted with, dissolved or suspended in water or other liquids to reduce their explosive properties...Manufacturer/supplier or competent authority to specify appropriate material.”

15. In addition, the informal working group also reviewed the P230 precautionary statement ‘**Keep wetted with...**’ to ensure that it accurately applied to both explosives (divisions 1.1, 1.2, 1.3 and 1.5) and desensitized explosives.

16. The term “wetted” is generally used for a substance that is covered by a specific liquid (e.g. sodium metal stored beneath kerosene) to reduce the risk of an adverse effect occurring, in a similar manner that liquid and solid phlegmatizers are added to an explosive to make it less susceptible to detonation and thus more stable and safer to handle and transport. However, in the context of explosives the term “diluted” is the general wording that is used for liquid and solid phlegmatizers. Similarly, desensitized explosives are also diluted with liquids or solids to reduce their explosive properties.

17. Given that both explosives and desensitized explosives can be diluted with solids, not just liquids, the use of the word “wetted” in the P230 precautionary statement incorrectly implies that only liquids are used to reduce explosive properties for these hazard classes when solids are also used for this purpose.

18. Consequently, the group considered that for correctness it would be appropriate to amend the P230 precautionary statement to read: “**Keep diluted with...**”.

Proposed amendments

19. In Table A.3.2.2, Section 2, for the P230 entry:

Delete the precautionary statement: “**Keep wetted with...**” and replace it with the precautionary statement: “**Keep diluted with...**”

For the explosives hazard class (divisions 1.1, 1.2, 1.3 and 1.5), under “*Conditions for use*”:

Delete:

¹ See informal documents INF.8, INF.21 and INF.24 (GHS Sub-Committee, thirty-seventh session).

“- for substances and mixtures which are wetted, diluted, dissolved or suspended with a phlegmatizer in order to suppress their explosive properties ...Manufacturer/supplier or competent authority to specify appropriate material.”

Insert:

“- for explosive substances and mixtures that are diluted with solids or liquids, or wetted with, dissolved or suspended in water or other liquids to reduce their explosives properties.

...Manufacturer/supplier or competent authority to specify appropriate material.”

20. In Section 3, for the table ‘Explosives (divisions 1.1, 1.2, 1.3 and 1.5)’, under the “Prevention” column for the P230 entry:

Delete:

“Keep wetted with...

- for substances and mixtures which are wetted, diluted, dissolved or suspended with a phlegmatizer in order to reduce or suppress their explosive properties (desensitised explosives).

...Manufacturer/supplier or competent authority to specify appropriate material.”

Insert:

“Keep diluted with...

- for explosive substances and mixtures that are diluted with solids or liquids, or wetted with, dissolved or suspended in water or other liquids to reduce their explosives properties.

...Manufacturer/supplier or competent authority to specify appropriate material.”

Action requested

21. The Sub-Committee is invited to agree to the proposed changes to Serious Eye Damage/Eye irritation; P230; and P231 in Sections 2 and 3 of Annex 3 of the GHS as set out in this document.
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