

## 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

06 November 2020

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Item 3 (b) of the provisional agenda

**Classification criteria and related hazard communication:  
review of Chapter 2.1**

## **Amendments to the decision logics for explosives in Chapter 2.1 as proposed in ST/SG/AC.10/C.4/2020/18**

### **Transmitted by the expert from Germany**

1. The expert from Germany would like to thank the expert from Sweden for the good work on chapter 2.1 and for having finalized also the working document for the decision logics in chapter 2.1 in time. According to our evaluation the decision logics as proposed in working document ST/SG/AC.10/C.4/2020/18<sup>1</sup> are correctly reflecting the criteria. However, we would like to propose two (small) changes to the decision logics 2.1 (a) and (b) concerning the order of two boxes, respectively.

### **Decision logic 2.1 (a): Order of boxes 2B and 3B**

2. We propose to switch the order of the boxes 2B and 3B in decision logic 2.1 (a) as shown in the decision logic in paragraph 5 below.

3. The advantage would be:

(a) The order of the boxes would be in line with the order of the criteria in the criteria table (see Annex II of ST/SG/AC.10/C.3/2020/20/Add.1–ST/SG/AC.10/C.4/2020/5/Add.1).

(b) The more general question that concerns also substances and mixtures would be asked before the specific one relating only to articles. The current order could be confusing because the reader might not understand (immediately) that the question in box 3B in ST/SG/AC.10/C.4/2020/18 refers not only to articles but to substances and mixtures as well because it comes after a box that relates to some special articles only.

4. In order to avoid possible confusion about articles that do not have a primary packaging, it is proposed to slightly amend the wording in box 2B' (shown in the decision logic in paragraph 5 below) and in 3B' as follows:

(a) Current wording in 2B: "Is it an explosive article assigned to a division without a primary packaging or in a primary packaging that does not attenuate the explosive effect?"

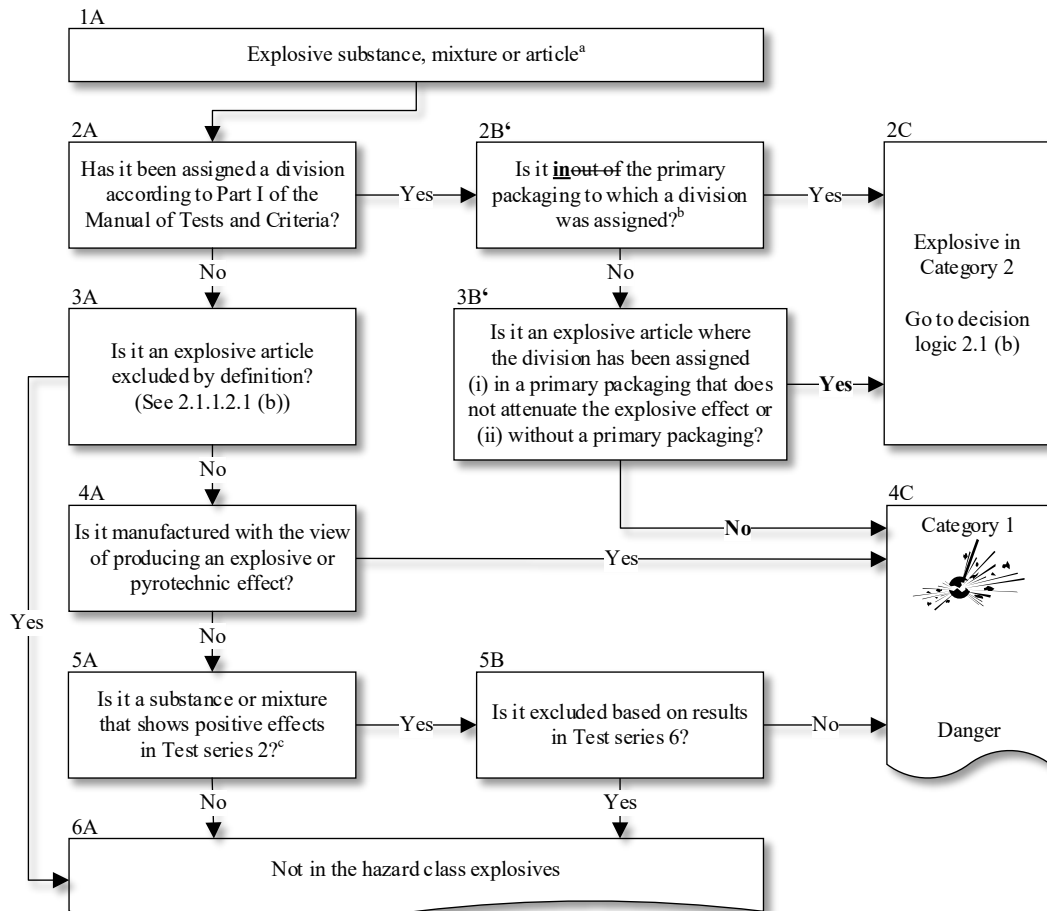
(b) Proposed wording for 3B': "Is it an explosive article where the division has been assigned (i) in a primary packaging that does not attenuate the explosive effect or (ii) without a primary packaging?"

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<sup>1</sup> The SCE TDG was made aware of this document through informal document UN/SCETDG/57/INF.23.

The proposed wording aims at clarifying that, for the answer to this question, it is not relevant whether the article actually is in a primary packaging. The primary packaging is considered only with regard to its role in the division assignment.

5. The amended decision logic 2.1 (a) is shown in the following:



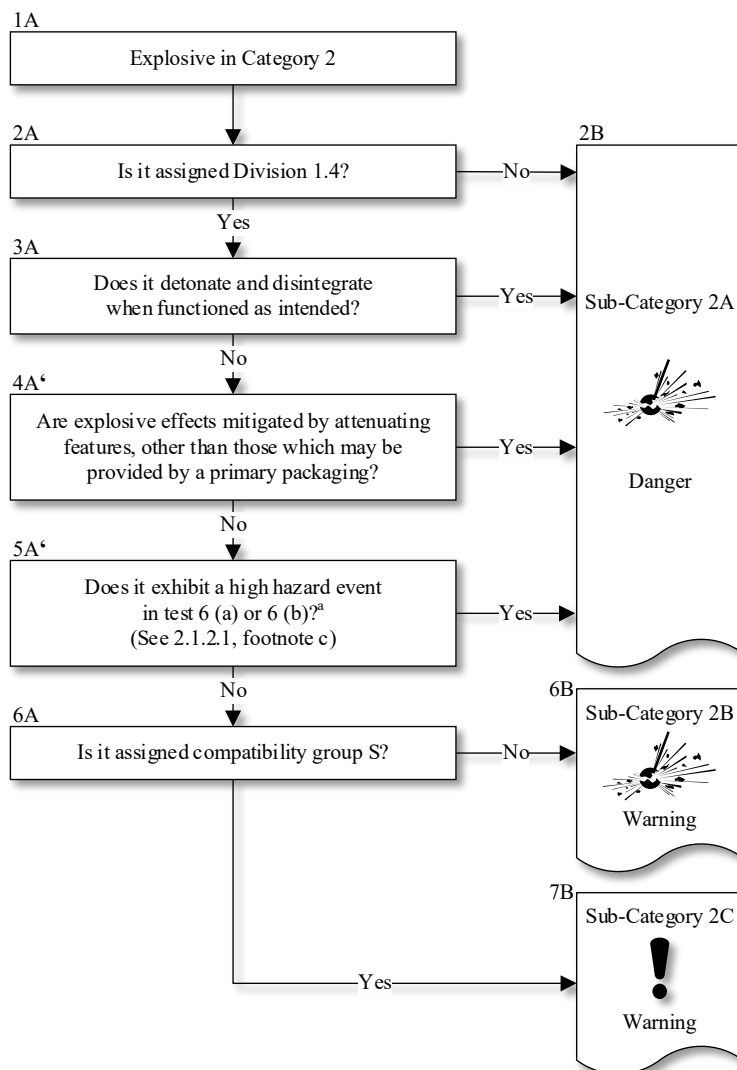
### Decision logic 2.1 (b): Order of the boxes 4A and 5A

6. We propose to switch the order of the boxes 4A and 5A in decision logic 2.1 (b) as shown in paragraph 10 below.

7. This would have the following advantage: It is easier to decide whether attenuating features of the packaging are present than to find out whether there was a high hazard event in test 6 (a) or 6 (b) (which appears to require digging out old test reports). Thus, we think that the question about attenuating features should be asked first. If they are present, it is not necessary to look at test 6 results for the purposes of sub-category assignment at all.

8. In order to avoid reference to test 6 (a) or 6 (b) in the new box 4A' (because it then is before the box on test 6 (a) and (b)), we also propose a slight rewording of that box, as shown in paragraph 9 below. The wording then would also be in line with the one in box 3B' in the above decision logic and thus also with the wording proposed in ST/SG/AC.10/C.4/2020/18 (see box 2B of decision logic 2.1 (a) in that document). In decision logic 2.1 (a) the packaging is supposed to be assessed with regard to attenuation of explosive effects (which can be assessed based on expert judgement) but not with regard to the specific potential to mitigate a high hazard event in test 6 (a) or (b) (which rather would be guess work).

9. The wording in box 4A' thus is proposed to be amended as follows:
- Current wording in 5A: "Is a high hazard event mitigated by attenuating features, other than which may be provided by a primary packaging?"
  - Proposed wording for 4A': "Are explosive effects mitigated by attenuating features, other than those which may be provided by a primary packaging?"
10. The amended decision logic 2.1 (b) is shown in the following:



11. We are aware that experts in the field of explosives classification might/would follow the proposed order anyway and thus it could be argued that a change of the decision logic to reflect that would be not necessary. However, we think it is important to reflect best practice as good as possible also in the decision logics. The GHS addresses not only experts but is supposed to serve also countries/jurisdictions who do not have (yet) sophisticated classification systems and are in the process of building the respective expertise.

### “Consequential” amendment to the order of the respective criteria

12. Furthermore, we propose to switch the order of the respective criteria in the same way as proposed for decision logic 2.1 (b). Strictly speaking, this would not be necessary because the respective criteria are connected with an “and” and all conditions have to be fulfilled equally. But for the sake of consistency, it would be preferable to have the same order in the criteria table as in the decision logic. The result would be as shown in the following (only the

relevant lines for category 2 of the table in Annex II to working document ST/SG/AC.10/C.3/2020/20/Add.1–ST/SG/AC.10/C.4/2020/5/Add.1 are shown):

2	2A	Explosive substances, mixtures and articles which have been assigned (a) Division 1.1, 1.2, 1.3, 1.5 or 1.6; or (b) Division 1.4 and are not meeting the criteria for sub-category 2B or 2C. <sup>b</sup>
	2B	Explosive substances, mixtures and articles which have been assigned to Division 1.4 and a compatibility group other than S, and which: (a) do not detonate and disintegrate when functioned as intended; and (b) <b><u>do not require attenuating features, other than those which may be provided by a primary packaging, to mitigate explosive effects</u></b> <del>exhibit no high hazard event<sup>e</sup> in test 6(a) or 6(b) of the <i>Manual of Tests and Criteria</i>; and</del> (c) <b><u>exhibit no high hazard event<sup>c</sup> in test 6(a) or 6(b) of the <i>Manual of Tests and Criteria</i></u></b> <del>do not require attenuating features, other than that which may be provided by a primary packaging, to mitigate a high hazard event<sup>e</sup>.</del>
	2C	Explosive substances, mixtures and articles which have been assigned to Division 1.4 compatibility group S, and which: (a) do not detonate and disintegrate when functioned as intended; and (b) <b><u>do not require attenuating features, other than those which may be provided by a primary packaging, to mitigate explosive effects</u></b> <del>exhibit no high hazard event<sup>e</sup> in test 6(a) or 6(b), or in the absence of these test results, similar results in test 6(d) of the <i>Manual of Tests and Criteria</i>; and</del> (c) <b><u>exhibit no high hazard event<sup>c</sup> in test 6(a) or 6(b), or in the absence of these test results, similar results in test 6(d) of the <i>Manual of Tests and Criteria</i></u></b> <del>do not require attenuating features, other than that which may be provided by a primary packaging, to mitigate a high hazard event<sup>e</sup>.</del>

### Request to the Sub-Committee

13. The Sub-Committee is invited to consider the proposal. As the new chapter 2.1 of the GHS is expected to be adopted during the December 2020 meeting and given the special circumstances of that meeting, the expert from Germany would like to do preparatory work as far as possible. Therefore, we would appreciate to receive feedback in advance, either on the commenting platform or via e-mail and would try to coordinate comments, suggestions and proposals for amendments in advance of the Sub-Committee meeting.