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## **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**

#### **Forty-second session**

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Item 2 (h) of the provisional agenda

#### **Work on the Globally Harmonized System (GHS): improvement of annexes 1 to 3 and further rationalization of precautionary statements**

### **Combination statement amendments to sections 1, 2 and 3 of Annex 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. In line with its mandate for the 2021-2022 biennium the informal working group has taken forward work under its focus area (a): “to develop proposals to rationalise and improve the comprehensibility of hazard and precautionary statements for users, while taking into account usability for labelling practitioners.”
2. This document presents the outcome of work under item 2 in the group’s workplan informal document INF.21 (thirty-ninth session) where the issue was to review the tables of Annex 3 to identify inconsistencies and errors in the combination statements and to consider where other potential improvements that could be made.
3. During the review, the group considered the value of presenting combined hazard and precautionary statements in the Annex 3 tables and identified a number of inconsistencies and other issues as detailed in paragraphs 4-19 (Section 1); 20-35 (Section 2); and 36-39 (Section 3) below.

### **Section 1: Combined hazard statements**

#### **Retention of combined hazard statements**

4. Hazard statements are a standardised label element in the harmonised system, which should not be subject to variation and should appear on the GHS label (see 1.4.6.2) unless otherwise specified in 1.4.10.5.3.3.

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\* A/75/6 (Sect.20), para. 20.51



5. A number of combined hazard statements are provided in Section 1. These combinations are only within an equivalent severity of hazard categories (e.g. for acute toxicity hazard category 3, only statements including “Toxic” can be combined) and/or within the same hazard classes (e.g. a statement such as “toxic if swallowed and to aquatic life” would not be permitted).

6. The use of combined hazard statements is considered to be optional rather than mandatory, leaving the competent authorities to specify whether the combined hazard statements or the corresponding individual statements should appear on the label, or to leave the choice to the manufacturer/supplier (see ST/SG/AC.10/C.4/2008/24 and A3.1.2.4).

7. Following due consideration of whether the combined hazard statements provided in the tables of section 1 should be retained, expanded upon or removed entirely from the section, overall, the group concluded that users of the GHS would benefit from retaining the existing combined hazard statements in the tables as they demonstrate how such combinations could be achieved.

### Skin irritation and serious eye irritation/eye irritation

8. The combined hazard statement: H315 + H320 “**Causes skin and eye irritation**” was introduced into Table A3.1.2 (see ST/SG/AC.10/C.4/2008/24) because many substances and mixtures have properties leading to classification with the following two hazard classes and categories:

- Skin corrosion/irritation, category 2: “**Causes skin irritation**” (H315)
- Serious eye damage/eye irritation, category 2B: “**Causes eye irritation**” (H320)

9. However, the hazard classification of serious eye damage/eye irritation, category 2B is not relevant in all jurisdictions, whereas the classification of serious eye damage/eye irritation, category 2/2A, is relevant in all jurisdictions that have implemented this hazard class.

10. The group concluded that it would be appropriate to retain H315 + H320 “**Causes skin and eye irritation**” for skin irritation, category 2 and eye irritation, category 2B, and introduce a new hazard combination statement of: H315 + H319 “**Causes skin irritation and serious eye irritation**” into Table A3.1.2 for skin irritation, category 2 and serious eye damage/eye irritation, category 2/2A. This would allow competent authorities the ability to choose the most applicable combination statement to address the hazard classification of serious eye damage/eye irritation.

11. To help to provide further clarity on the use of these two combination statements, the group also propose consistency of notation format in column 4 (‘Hazard category’) for these statements and to introduce a footnote to Table A3.1.2, linked to these combination statement entries, indicating that competent authorities should select the applicable statement depending on the serious eye damage/eye irritation categories they implement in their jurisdiction (2/2A or 2/2B). The proposed changes to the Table A3.1.2 entries are provided in the following table (new text in bold underline), with the proposed footnote to Table A3.1.2 provided below in paragraph 19:

Code	Health hazard statements	Hazard class (GHS chapter)	Hazard category
(1)	(2)	(3)	(4)
<u><b>H315</b></u> ± <u><b>H319</b></u>	<u><b>Causes skin irritation and serious eye irritation</b></u> <sup>1</sup>	<u><b>Skin corrosion/irritation (chapter 3.2) and serious eye damage/eye irritation (chapter 3.3)</b></u>	<u><b>2 (skin) + 2/2A (eye)</b></u>
H315 + H320	<b>Causes skin and eye irritation</b> <sup>1</sup>	Skin corrosion/irritation (chapter 3.2) and serious eye damage/eye irritation (chapter 3.3)	2 (skin) ± 2B (eye)

## Variations in the text of combined hazard statements

12. Although paragraph 1.4.6.2 states that there should be no variation, some textual amendments have been made to improve the readability of the combined hazard statements as indicated in the example provided in A3.1.2.3 and the combinations listed in Table A3.1.2. Text has been removed from the individual hazard statements (e.g. “Fatal”; “May be harmful”) that would be duplicated in the resultant combined statements, with a joining word and/or punctuation (i.e. a comma “,”) depending on whether it is a two or three statement combined hazard statement e.g. H303 + H313 + H333: “**May be harmful if swallowed, in contact with skin or if inhaled.**”. This implies that some minor textual amendments are allowed when combining hazard statements, though the text in Section 1 is not explicit on this.

13. Consequently, to provide the necessary clarity within Section 1, the group propose the following amendments:

- amend paragraph A3.1.2.3 to extend the example provided in the last sentence to a three-statement combined hazard statement (deleted text is shown in strikethrough and new text in bold underline):  
“H300 + H310 + **H330**: “Fatal if swallowed, ~~or~~ in contact with skin **or if inhaled.**”
- amend the last sentence of paragraph A3.1.2.4 to clarify that there may be other combinations of hazard statements other than those listed in the tables of Section 1 that may be necessary on the label. To help facilitate this, the group considered that the word: ‘indicated’ should be replaced by the word: ‘permitted’. The full proposed revised sentence is provided in paragraph 15 below.
- introduce a new paragraph “A3.1.2.5”, as shown in paragraph 16 below, to explicitly state that minor textual changes such as the use of a joining word, punctuation and the removal of repetitive text to improve the readability or clarity of the combined hazard statement are permitted.

## Proposed amendments to Section 1

14. In A3.1.2.3, replace the last sentence with:

“For example, H300 + H310 + H330 indicates that the text to appear on the label is “**Fatal if swallowed, in contact with skin or if inhaled.**”.”

15. In A3.1.2.4, replace the last sentence with:

“Also, where a combined hazard statement is permitted for two or more hazard statements (see A3.1.2.5), the competent authority may specify whether the combined hazard statement or the corresponding individual statements should appear on the label or may leave the choice to the manufacturer/supplier.”

16. Insert a new paragraph A3.1.2.5 to read as follows:

“A3.1.2.5 In addition to the combinations found in Table A3.1.2, it is also permitted to combine more than one health hazard statement of equivalent severity if, for example, there is insufficient space on the label. When hazard statements are combined, all hazards must be clearly conveyed and only the repetitive text may be deleted. Statements can be combined by using the word “and”, additional punctuation, and changing the case of the initial letter of the word at the beginning of a statement. For example, H317 “May cause an allergic skin reaction” + H340 “May cause genetic defects” + H350 “May cause cancer” may all be combined because they are all for Category 1 health hazards (i.e., health hazard statements of equivalent severity) and have repetitive elements of the hazard statement (i.e., the statements begin with “may cause”). These statements may be combined to “May cause an allergic skin reaction, genetic defects, and cancer.” The competent authority may limit the types of combinations permitted to ensure comprehensibility (e.g., limit the number of hazard statements that can be combined).”

17. In Table A3.1.2, after the 'H303 + H313 + H333' entry, insert:  
Under column 1 "Code (1)", insert: "H315 + H319".  
Under column 2 "Health hazard statements (2)", insert: "Causes skin irritation and serious eye irritation <sup>1</sup>".  
Under column 3 "Hazard class (GHS chapter) (3)", insert: "Skin corrosion/irritation (chapter 3.2) and serious eye damage/eye irritation (chapter 3.3)".  
Under column 4 "Hazard category (4)", insert: "2 (skin) + 2/2A (eye)".
18. In Table A.3.1.2, for the "H315 + H320" entry:  
Under column 2 "Health hazard statements (2)", insert the footnote indicator "<sup>1</sup>" at the end of the phrase: "Causes skin and eye irritation"  
Under column 4 "Hazard category (4)", replace "/" entry with "+".
19. Under Table A3.1.2, insert the following footnote:  
*"<sup>1</sup> Competent authorities may select the applicable hazard statement(s) depending on the serious eye damage/eye irritation hazard categories implemented in their jurisdiction (2/2A or 2A/2B)."*

## Section 2: Combined precautionary statements:

### Retention of combined precautionary statements

20. Precautionary statements provide details of recommended measures that should be taken for a given hazard class/category, e.g. P203 "**Obtain, read and follow all safety instructions before use.**"; P316 "**Get emergency medical help immediately.**". Although precautionary statements have not been fully harmonized in the GHS, Annex 3 provides guidance to aid in the selection of appropriate statements and they should still be provided on the GHS label (see 1.4.6.2 and A3.2.1.4).
21. A3.2.5.2.2 makes it clear that the combined precautionary statements provided in Section 2 (and Section 3) are only examples and that those responsible for labelling should combine and consolidate statements where it improves the clarity and comprehensibility of the label information.
22. Although some may question the value of providing only example combination statements in the tables, particularly as those who have the responsibility for labelling their chemical products know their products best and will use the appropriate combinations whether they are listed in the tables or not, it is not possible or appropriate to provide an exhaustive list of combination statements in the tables.
23. Therefore, following due consideration of whether the combined precautionary statements provided in the tables of Section 2 should be retained, expanded upon or removed entirely from the section, overall, the group concluded that users of the GHS would benefit from retaining the existing combined precautionary statements in the tables as they demonstrate how such combinations could be achieved.

### Variations in the text of combined precautionary statements

24. With the exception of some combined medical response precautionary statements, the individual precautionary statements are usually provided sequentially in the combined statement (e.g. P301 + P330 + P331: "**IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.**").
25. Although A3.2.5.3.1 details that, subject to the requirements of competent authorities, there is scope for minor textual variance of precautionary statements so long as it does not undermine the safety information, the text in section A3.2.5.2 is not explicit regarding the

minor textural variation that is allowed when combining precautionary statements that would improve the readability of the resultant statement.

26. Therefore, the group considered that it would be appropriate to amend the text in section A3.2.5.2.2 to provide the necessary clarity that a joining word, punctuation or the change of case of the initial word of a precautionary statement is permitted where this improves the readability of a combined precautionary statement. To achieve this clarity and for consistency with the proposed new paragraph A3.1.2.5, after the first sentence of paragraph A3.2.5.2.2, the group propose to insert a new second sentence, followed by an example of a combined precautionary statement as provided in paragraph 33 below. The full amended paragraph A3.2.5.2.2 is provided in the annex of the accompanying informal document INF.3.

### Square brackets around precautionary statement codes

27. During the review, the group identified that in one instance a precautionary statement code was provided in brackets for P370 + P380 + P375 [+ P378] **“In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. [Use...to extinguish].”**

28. The use of square brackets “[...]” is intended to indicate that the precautionary statement associated with the code does not apply in all cases. Although there is explanatory text in A3.2.4.4 regarding use of square brackets around a statement, there is no explanatory text regarding the use of square brackets around a code.

29. Therefore, the group propose to resolve this issue by adding the new paragraph “A3.2.2.4” as shown in paragraph 34 below.

### Inconsistencies identified in Table A3.2.3 of Section 2

30. The group also identified an inconsistency between the combination statement: P302 + P335 + P334 **“IF ON SKIN: Brush off loose particles from skin. Immerse in cool water [or wrap in wet bandages].”** provided in Table A3.2.3 with that provided in the matrix table for substances and mixtures which, in contact with water, emit flammable gases, 1-2.

31. To remove this inconsistency, the group considered that the wording provided in the matrix (P302 + P335 + P334 **“IF ON SKIN: Brush off loose particles from skin and immerse in cool water [or wrap in wet bandages].”**) improved the readability and proposed that this wording was also used in Table A3.2.3 for this combination statement. In addition, as pyrophoric solids (Category 1) are also listed under this combination statement the group noted that the matrix table for this hazard class would also require amending (see paragraph 39 below under proposed amendments to the matrix tables).

32. The informal working group considered that this amendment should be made in Table A3.2.3 of Section 2 as proposed in paragraph 35.

### Proposed amendments to Section 2:

33. Insert the following text after the first sentence in A3.2.5.2.2:

“Precautionary statements can be combined by using the word “and”, additional punctuation, and changing the case of the initial letter of the word at the beginning of a statement. For example, P302 + P335 + P334 **“IF ON SKIN: Brush off loose particles from skin and immerse in cool water [or wrap in wet bandages].”**

34. In Section A3.2.2 insert the following new paragraph:

“A3.2.2.4 Where square brackets [...] appear around a precautionary statement code, this indicates the precautionary statement is not appropriate in every case and should be used only in certain circumstances. In these cases, conditions for use explaining when the text should be used are given in column (5) of the tables.”

35. In Table A.3.2.3 of Annex 3, Section 2, the entry for ‘P302 + P335 + P334’:

In column 2 replace with:

**“IF ON SKIN: Brush off loose particles from skin and immerse in cool water [or wrap in wet bandages].”**

## **Section 3: Combined statements in the matrix tables:**

### **Inclusion of combined hazard statements in the matrix tables**

36. The informal working group considered whether the matrix tables should be amended to include the combined hazard statements that are provided in the tables of Section 1.

37. The primary purpose of the matrix tables in Section 3 is to list the recommended precautionary statements for each hazard class and hazard category by type of precautionary statement as these are not listed in the hazard class chapters because precautionary statements are not standardised labelling elements.

38. The combined hazard statements are dependent on what hazard classes and categories a substance/mixture is classified in. Hence, including combined hazard statements in the matrix tables could therefore be considered misleading. Consequently, the group concluded that it would not be appropriate to include them in the matrix tables of Section 3.

### **Proposed amendments to the matrix tables in Section 3:**

39. In Annex 3, Section 3, matrix table for pyrophoric solids (chapter 2.10), hazard category 1, column “Response”, replace the P302 + P335 + P334 entry with:

“P302 + P335 + P334

**IF ON SKIN: Brush off loose particles from skin and immerse in cool water or wrap in wet bandages.”**

## **Action requested**

40. The Sub-Committee is invited to agree the proposed amendments to sections 1 to 3 of Annex 3 of the GHS as set out in this document in the following paragraphs:

- Section 1 proposed amendments are provided in paragraphs 14 to 19;
- Section 2 proposed amendments are provided in paragraphs 33 to 35;
- Section 3 proposed amendments are provided in paragraph 39.

41. Although the proposed combination statement amendments to Annex 3 are discussed and presented in full in this document, to assist those who prefer to view the proposed amendments in colour, these are provided in the annex of the accompanying informal document INF.3.

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