

**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**

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Item 7 of the provisional agenda

**Programme of work for the biennium 2013–2014**

**Programme of work: Hazard statements for carcinogenicity  
and other classes – Use of “May”, “Can” or “Suspected of”**

**Transmitted by the expert from Australia**

**I. Issue**

- On 1 January 2012, Australia began implementing the GHS into its workplace health and safety legislation in most of its states and territories. An issue was identified during implementation of the legislation relating to the meaning of hazard statements for the health hazard class of carcinogenicity. After examining hazard statements for other hazard classes, it is apparent that a similar problem exists in other hazard classes.
- For convenience, the issue which exist is shown for carcinogenicity. The hazard statements for carcinogenicity in the 4th revised edition of the GHS are given in Table 1.

**Table 1**

<b>Hazard class</b>	<b>Category</b>	<b>Meaning</b>	<b>Hazard statement</b>
Carcinogenicity	Cat. 1A/1B	Known or presumed human carcinogen	May cause cancer
	Cat. 2	Suspected human carcinogen	Suspected of causing cancer

- Feedback to us has indicated the hazard statements of categories 1A/1B and category 2 appear to suggest either an equivalent level of severity to end-users of chemicals or that the hazard statement for category 2 is more severe than category 1. The terms “May cause...” and “Suspected of causing...” can be interpreted in different ways in English.
- Although the hazard statement for category 1 carcinogens is “May cause cancer” the word “may” is not strong enough to suggest that a link to carcinogenicity been established for a particular substance. According to the criteria for category 1, established evidence of carcinogenicity in humans or animals is required to classify a substance or mixture into categories 1A or 1B.
- For category 2 carcinogens, the hazard statement “Suspected of causing cancer”, depending on its interpretation, either offers no discernible difference to the category 1 hazard statement or it implies a stronger causal link to carcinogenicity than does the category 1 hazard statement.

6. Consequently, it is considered that the current hazard statements do not adequately indicate the relative severities of categories 1A/1B and category 2. To reflect a demonstrated link to carcinogenicity, stronger wording for category 1 carcinogens is required.

7. To make the hazard statements in the carcinogenicity hazard class more correctly replicate their relative severities, the following change could be proposed to the hazard statements is proposed (see table 2).

**Table 2**

Hazard class	Category	Meaning	Hazard statement
Carcinogenicity	Cat. 1A/1B	Known or presumed human carcinogen	<del>May</del> <u>Can</u> cause cancer
	Cat. 2	Suspected human carcinogen	Suspected of causing cancer

8. While Australia recognises alternative solutions for this hazard class may exist and that solutions may differ in the different United Nations official languages, the above proposal offers a simple change by only altering one hazard statement for the class concerned. We consider that the proposed change to the hazard statement for category 1 more closely reflects the classification criteria and the relative severity of all categories.

9. Australia recognises that these statements have been subject to much discussion over a lengthy time period and are being implemented at present in national regulations. Nonetheless we consider this issue is worthy of discussion in the next biennium, since the primary aim of the GHS is hazard communication and relative hazard communication is also important.

## II. Other hazard classes affected

10. Other hazard classes are potentially affected by the same issue which brings into question how best to word hazard statements to reflect properly the severity of the classification and the criteria under each hazard class. To create a consistent use of these words in hazard statements across the GHS, a review of hazard statements and the intent of each statement would be required.

11. For example, comparing the hazard statement for Acute Toxicity (Oral) category 1 (H300 Fatal if swallowed) to that of aspiration toxicity category 1 (May be fatal if swallowed and enters the airways) an anomaly is apparent. For acute toxicity (Oral), the classification into this category is usually based upon an LD<sub>50</sub> value on animal studies. This is based on animal studies and it is assumed that human toxicity follows, even though human data may not be available. However, for aspiration toxicity category 1, a chemical is classified into this category based on “reliable and good quality human evidence”. Therefore it has been proven that chemicals in this category are actually fatal when swallowed by humans. Based on these classification criteria, it would be logical for the hazard statements to read as follows:

- (a) Acute toxicity (Oral) Cat. 1:  
“May be fatal if swallowed”
- (b) Aspiration toxicity Cat. 1:  
“Fatal if swallowed and enters the airways” *or*

“Can be fatal if swallowed and enters the airways”.

### **III. Next steps**

12. Australia is seeking discussion on this issue and to add it to the agenda of proposed work for the biennium 2013-2014. Australia would be willing to lead the discussion. A working paper incorporating any comments from discussion on this informal paper will be submitted at the 25th session of the Sub-Committee.

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