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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 Transport of Dangerous Goods

Fiftieth session
Geneva, 28 November-6 December 2016
Item 2 (c) of the provisional agenda
Recommendations made by the Sub-Committee on its forty-seventh, forty-eighth and forty-ninth sessions and pending issues: listing, classification and packing

Amended text for the revised Chapter 2.8

Transmitted by the expert from Canada, the European Chemical Industry Council (CEFIC) and the International Association for Soaps, Detergents and Maintenance Products (AISE)[1]

Introduction

1. A revised version of Chapter 2.8 has been tentatively accepted at the forty-ninth session of the Sub-Committee and is reproduced in ST/SG/AC.10/C.3/98/Add.1. Part of this new text remains in square brackets for consideration at the fiftieth session.

2. It is proposed to amend this text to take into account the new definition, as adopted by the Sub Committee of Experts on on the Globally Harmonized System of Classification and Labelling of Chemicals (Document ST/SG/AC.10/C.4/2016/9: adopted as amended by informal document INF.26, with one additional modification to paragraph 3.1.2.3) and the explanatory text required for the specific concentration limits. The explanatory text consist of 2 parts:

(a) The general approach, when specific concentration limits apply;

(b) A footnote with an example how to apply the formula.

[1] In accordance with the programme of work of the Sub-Committee for 2015–2016 approved by the Committee at its seventh session (see ST/SG/AC.10/C.3/92, paragraph 95 and ST/SG/AC.10/42, para. 15).

3. The OECD guidelines referred to in 2.8.3.2 are in square brackets. Canada, CEFIC and AISE support the update to newest version, as long as no retesting is required based on this update.

4. The consolidated version of Chapter 2.8 including the following changes is reproduced in informal document INF.5.

Proposals

5. In 2.8.1.2, delete the second sentence in square brackets so that 2.8.1.2 reads:

> "2.8.1.2 For substances and mixtures that are corrosive to skin, general classification provisions are provided in section 2.8.2. Skin corrosion refers to the production of irreversible damage to the skin, namely, visible necrosis through the epidermis and into the dermis occurring after exposure to a substance or mixture.".

6. In 2.8.3.3 (a), (b), (c) (i) and (c) (ii) and in table 2.8.3.4 (three times), replace "[full thickness destruction]" by "irreversible damage".

7. In 2.8.2.3, replace "[full thickness destruction of human skin]" by "irreversible damage of intact skin tissue".

8. In 2.8.4.3.3, delete "When a specific concentration limit is assigned to a substance following its entry in the Dangerous Goods List or in a Special Provision, this limit shall be used instead of the generic limits in Figure 2.8.4.3. for that substance. [insert example/explanation on specific concentration limits here]".

9. Insert the following new 2.8.4.3.4 and 2.8.4.3.5 and transfer Figure 2.8.4.3 after these new sub-sections:

> "2.8.4.3.4 When a specific concentration limit (SCL) is assigned to a substance following its entry in the Dangerous Goods List or in a Special Provision, this limit must be used instead of the generic concentration limits (GCL). This is appears where 1% is used in the first step for the assessment of the PGI substances, and where 5% is used for the other steps respectively in Figure 2.8.4.3.
>
> 2.8.4.3.5 For this purpose, the summation formula for each step of the calculation method must be adapted. This means that, where applicable, the generic concentration limit must be substituted by the specific concentration limit assigned to the substance(s) (SCLi), and the adapted formula is a weighted average of the different concentration limits assigned to the different substances in the mixture:
>
> $$\frac{PGx1}{GCL} + \frac{PGx2}{SCL2} + \cdots + \frac{PGxi}{SCLi} \geq 1$$
>
> Where:
>
> PG xi = concentration of substance 1, 2 …i in the mixture, assigned to packing group x (I, II or III)
>
> GCL = generic concentration limit
>
> SCLi = specific concentration limit assigned to substance i
>
> The criterion for a packing group is fulfilled when the result of the calculation is ≥ 1.
>
> Examples for the application of the above formula can be found in the note below.
>
> ***NOTE:*** *Examples for the application of the above formula*

Example 1: A mixture contains one corrosive substance in a concentration of 5% assigned to PG I without specific concentration limit:

Calculation for PG I: $\frac{5}{5\ (GCL)} = 1$ ➡ *assign to Class 8, PG I*

Example 2: A mixture contains three substances corrosive to skin two of them (A and B) have specific concentration limits; for the third one (C) the generic concentration limits applies. The rest of the mixture needs not to be taken into consideration:

Substance X in the mixture and its PG assignment within class 8	*Concentration (conc)in the mixture in %*	*Specific concentration limit (SCL)for PG I*	*Specific concentration limit (SCL) for PG II*	*Specific concentration limit (SCL) for PG III*
A, assigned to PG I	*3*	*30%*	*none*	*none*
B, assigned to PG I	*2*	*20%*	*10%*	*none*
C, assigned to PG III	*10*	*none*	*none*	*none*

Calculation for packing group I: $\frac{3\ (conc\ A)}{30\ (SCL\ PGI)} + \frac{2\ (conc\ B)}{20\ (SCL\ PGI)} = 0{,}2 < 1$

The criterion for packing group I is not fulfilled.

Calculation for packing group II: $\frac{3\ (conc\ A)}{5\ (GCL\ PG\ II)} + \frac{2\ (conc\ B)}{10\ (SCL\ PG\ II)} = 0{,}8 < 1$

The criterion for packing group II is not fulfilled.

Calculation for packing group III: $\frac{3\ (conc\ A)}{5\ (GCL\ PGIII)} + \frac{2\ (conc\ B)}{5\ (GCL\ PG\ III)} + \frac{10\ (conc\ C)}{5\ GCL\ PG\ III)} = 3 \geq 1$

The criterion for packing group III is fulfilled, the mixture shall be assigned to Class 8, packing group III.".