

**Committee of Experts on the Transport of Dangerous Goods
and on the Globally Harmonized System of Classification
and Labelling of Chemicals**

19 June 2018

**Sub-Committee of Experts on the
Transport of Dangerous Goods**

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Geneva, 25 June-4 July 2018

Item 10 (e) of the provisional agenda

**Issues relating to the Globally Harmonized System
of Classification and Labelling of Chemicals:**

Joint work with the GHS Sub-Committee

**Sub-Committee of Experts on the Globally Harmonized
System of Classification and Labelling of Chemicals**

Thirty-fifth session

Geneva, 4-6 July 2018

Item 2 of the provisional agenda

**Joint work with the Sub-Committee of Experts on the
Transport of Dangerous Goods (TDG Sub-Committee)**

Amendments to chemicals under pressure and aerosols

Transmitted by the expert from Germany

Introduction

1. Reference is made to the documents submitted thus far on the issue of chemicals under pressure and aerosols:

- ST/SG/AC.10/C.4/2018/3- ST/SG/AC.10/C.3/2018/5
- ST/SG/AC.10/C.4/2018/9
- ST/SG/AC.10/C.4/2018/11- ST/SG/AC.10/C.3/2018/60
- ST/SG/AC.10/C.4/2018/12

2. The expert from Germany highly appreciates the efforts made to include chemicals under pressure in the GHS, to amend the section for aerosols to take into account this new section, the proposal to fully reflect the criteria for aerosols not only in the flow-chart but also in a criteria table and to correct the equation for calculating the heat of combustion.

3. In the following, the expert from Germany makes a few proposals aiming at alignment of the text of the complementary sections for chemicals under pressure and aerosols (equivalent issues should be treated and worded equivalently where possible). The amendments are based on documents ST/SG/AC.10/C.4/2018/3- ST/SG/AC.10/C.3/2018/5 (for chemicals under pressure) and ST/SG/AC.10/C.4/2018/11- ST/SG/AC.10/C.3/2018/60 (for aerosols).

**Amendments to the section for chemicals under pressure,
i.e. to document ST/SG/AC.10/C.4/2018/3- ST/SG/AC.10/C.3/2018/5**

Proposal 1

Replace sections 2.3.2.2.1 to 2.3.2.2.4 by the following (amendments are underlined, deletions are not shown in order to be better legible):

"2.3.2.2.1 Mixtures containing liquids or solids (i.e., pastes or powders) and gases, in pressure receptacles other than an aerosol dispenser are classified as chemicals under pressure if they contain 50 % or more of liquids and/or solids and the pressure in the receptacle is higher than 200 kPa at 20 °C. They are classified in one of three categories of this hazard class, according to Table 2.3.2, depending on their content of flammable components and their heat of combustion (see 2.3.2.4.1).

2.3.2.2.2 Flammable components are components which are classified as flammable according to the GHS criteria, i.e.:

- Flammable gases (see Chapter 2.2);
- Flammable liquids (see Chapter 2.6);
- Flammable solids (see Chapter 2.7).

Table 2.3.2 Criteria for chemicals under pressure

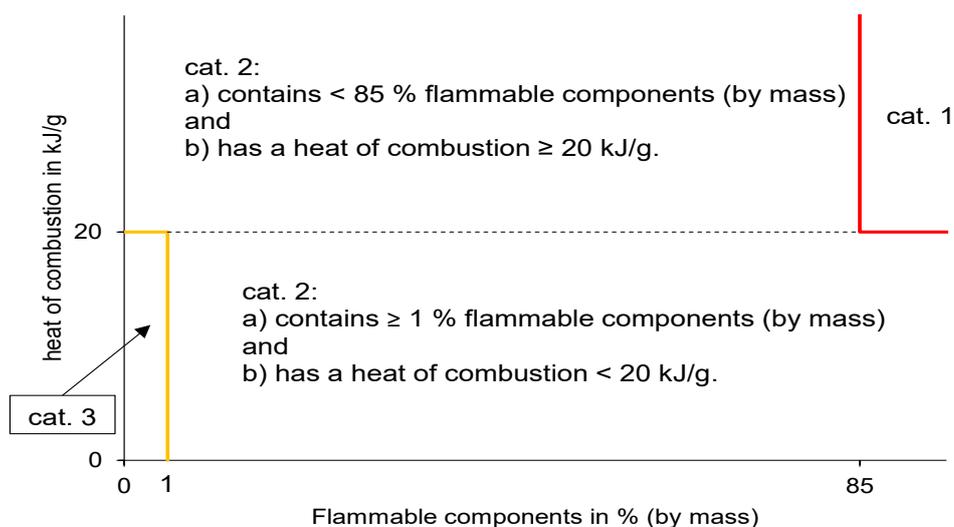
<u>Category</u>	<u>Criteria</u>
1	Any chemical under pressure that a) contains $\geq 85\%$ flammable components (by mass) and b) and has a heat of combustion of ≥ 20 kJ/g.
2	Any chemical under pressure that a) contains $\geq 1\%$ flammable components (by mass) and b) has a heat of combustion < 20 kJ/g or that a) contains $< 85\%$ flammable components (by mass) and b) has a heat of combustion ≥ 20 kJ/g.
3	Any chemical under pressure that a) contains $\leq 1\%$ flammable components (by mass) and b) and has a heat of combustion of < 20 kJ/g."

Notes 1 and 2 remain unchanged.

Justification

Every physical hazard class (except chapter 2.8 and 2.15) contains a criteria table (for aerosols it is supposed to be introduced with ST/SG/AC.10/C.4/2018/9). It is therefore suggested to introduce a criteria table for chemicals under pressure as well. The contents of that criteria table would reflect what currently is proposed for sections 2.3.2.2.2 to 2.3.2.2.4. These paragraphs therefore are no longer needed and the presentation of the criteria then would be in line with how the criteria are usually presented in the GHS.

The added wording of the criteria for category 2 becomes clear with the following chart:



Proposal 2

Amend section 2.3.2.4 as follows (additions are underlined, deletions are in ~~strike~~through):

"2.3.2.4 *Decision logic and guidance*

The decision logic 2.3.2 and the guidance on chemical heat of combustion in 2.3.3 ~~which follow are not part of the harmonised classification system but have~~ has been provided as additional guidance. It is strongly recommended that the person responsible for classification studies the criteria before and during use of the decision logic."

Justification

The proposed wording is equivalent to the wording as proposed for aerosols. It still points out that the decision logic is additional guidance.

Amendments to the section for aerosols, i.e. to document ST/SG/AC.10/C.4/2018/11- ST/SG/AC.10/C.3/2018/60

Proposal 3

Switch Notes 2 and 3 in section 2.3.1.2.1

Justification

Note 2 and 3 should be switched because the current Note 3 concerns the classification itself and therefore should be closer to criteria table. Moreover this is also the current order in the aerosol chapter.
