Secretariat

**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 4 (d) of the provisional agenda
Hazard communication: other issues

Corrections to Annex 4 Section 9 "Physical and chemical properties and safety characteristics"

Transmitted by the expert from Germany[*]

1.   Currently, the revised Section 9 for the Safety Data Sheets (SDS) (which was introduced in the GHS with the sixth revised edition from 2015) is implemented in Europe in Annex II to the Regulation (EC) No 1907/2006 of the European parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). In the course of this work, it was found that the equations in two entries are formally not correct. These mistakes concern proper statement of units only and do not compromise the outcome. However, the equations should also be formally correct. Furthermore, at one place the word energy was used instead of the word temperature and should be corrected.

2.   The Sub-Committee is requested to consider the proposals as shown in paragraph 3, 4 and 5. Additions are **bold underlined**, deletions are ~~striken through~~.

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[*] In accordance with the programme of work of the Sub-Committee for 2017–2018 approved by the Committee at its eighth session (see ST/SG/AC.10/C.3/100, paragraph 98 and ST/SG/AC.10/44, paragraph 14).

3.   In Table A4.3.9.1 in the entry "Vapour pressure" correct the sixth indent as follows:

Vapour pressure	... − the saturated vapour concentration (*SVC*) **in ml/m^3 or in g/m^3 (=mg/l)** may be indicated in addition. The saturated vapour concentration can be estimated as follows: ~~SVC (in ml/m^3) = VP(in hPa = mbar) · 987.2~~ ~~SVC (in mg/l) = VP(in hPa = mbar) · MW · 0.0412~~ ***SVC* in ml/m^3:** $\boldsymbol{SVC = VP/\text{hPa} \cdot 987,2 \cdot \text{ml/m}^3}$ ***SVC* in g/m^3:** $\boldsymbol{SVC = VP/\text{hPa} \cdot MW/(\text{g/mol}) \cdot 0,0412 \cdot \text{g/m}^3}$ where • *VP* is the vapour pressure **in hPa (=mbar)** • *MW* is the molecular weight **in g/mol**

4.   In Table A4.3.9.1 in the entry "Relative vapour density" correct the fourth indent as follows:

Relative vapour density	... − for liquids, the relative density **$\boldsymbol{D_m}$** of the vapour/air-mixture at 20 °C (air = 1) may be indicated in addition. It can be calculated as follows: ~~D$_m$ = 1 + (34 · VP$_{20}$ · 10^{-6} · (MW − 29))~~ $$D_m = 1 + \left(\frac{VP_{20}}{\text{hPa}} \cdot \frac{MW - 29\,\text{g/mol}}{\text{g/mol}} \cdot 34 \cdot 10^{-6} \right)$$ where • ~~D_m is the relative density of the vapour/air mixture at 20 °C~~ • VP_{20} is the vapour pressure at 20 °C in **hPa (=**mbar**)** • *MW* is the molecular weight **in g/mol**

5.   In Table A4.3.9.2 in the entry for chapter 2.8 "Self-reactive substances and mixtures" correct the first indent as follows:

2.8	Self-reactive substances and mixtures	− for the SADT (self-accelerating decomposition temperature), see the entry for the decomposition ~~energy~~ **temperature** in Table A4.3.9.1 ...