

# UN/SCETDG/34/INF.68

# UN/SCEGHS/16/INF.28

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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

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

Thirty-fourth session  
Geneva, 1-9 December 2008  
Item 11 of the provisional agenda

Sixteenth session  
Geneva, 10-12 (a.m.) December 2008  
Item 2 (a) of the provisional agenda

### ISSUES RELATING TO THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS))

#### Physical hazards

#### Self-heating substances and mixtures – Amendment of ST/SG/AC.10/C.3/2008/79 and ST/SG/AC.10/C.4/2008/20

Transmitted by the expert from Germany

#### **Introduction**

1. This document is supposed to replace the proposal made in document ST/SG/AC.10/C.3/2008/79 and ST/SG/AC.10/C.4/2008/20 by two alternative proposals which both will correct the existing text.
2. Proposal 1 just deletes the second (incorrect) sentence of the respective paragraph thereby avoiding the introduction of new (disputable) wording.
3. Proposal 2 is based on a wording proposed by the UK in a discussion.

#### **Proposal 1**

4. Delete the 2nd sentence in 2.4.3.1.2 of the UN Model Regulations to read as follows:

“2.4.3.1.2 Self-heating of substances, leading to spontaneous combustion, is caused by reaction of the substance with oxygen (in the air) and the heat developed not being conducted away rapidly enough to the surroundings. ~~Spontaneous combustion occurs when the rate of heat production exceeds the rate of heat loss and the auto-ignition temperature is reached.~~

5. Delete the 2nd sentence of the note in section 2.11.1 of the UN-GHS to read as follows:

*“NOTE: Self-heating of substances or mixtures, leading to spontaneous combustion, is caused by reaction of the substance or mixture with oxygen (in the air) and the heat developed not being conducted away rapidly enough to the surroundings. ~~Spontaneous combustion occurs when the rate of heat production exceeds the rate of heat loss and the auto-ignition temperature is reached.~~”*

## Proposal 2

6. Amend sub-section 2.4.3.1.2 of the UN Model Regulations to read as follows (amended text is underlined):

“2.4.3.1.2 Self-heating of substances is a process where the gradual reaction of that substance with oxygen (in air) generates heat. If the rate of heat production exceeds the rate of heat loss, then the temperature of the substance will rise which, after an induction time, will lead to self ignition and combustion.

~~Self heating of substances, leading to spontaneous combustion, is caused by reaction of the substance with oxygen (in the air) and the heat developed not being conducted away rapidly enough to the surroundings. Spontaneous combustion occurs when the rate of heat production exceeds the rate of heat loss and the auto-ignition temperature is reached.~~

7. Amend the note in section 2.11.1 of the UN-GHS to read as follows (amended text is underlined):

*“NOTE: Self-heating of substances is a process where the gradual reaction of that substance with oxygen (in air) generates heat. If the rate of heat production exceeds the rate of heat loss, then the temperature of the substance will rise which, after an induction time, will lead to self ignition and combustion.*

~~Self-heating of substances or mixtures, leading to spontaneous combustion, is caused by reaction of the substance or mixture with oxygen (in the air) and the heat developed not being conducted away rapidly enough to the surroundings. Spontaneous combustion occurs when the rate of heat production exceeds the rate of heat loss and the auto-ignition temperature is reached.”~~

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