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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**

**7 October 2010**

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

**Thirty-eighth session**
Geneva, 29 November–7 December 2010
Item 11 of the provisional agenda
**Issues relating to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)**

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

**Twentieth session**
Geneva, 7–9 December 2010
Item 2(a) of the provisional agenda
**Updating of the third revised edition of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Physical hazards**

# Consequential amendments to the GHS from the proposal in ST/SG/AC.10/C.3/2010/69 – ST/SG/AC.10/C.4/2010/9

## Transmitted by the expert from Germany

1. Reference is made to paragraph 14 in document ST/SG/AC.10/C.3/2010/69-ST/SG/AC.10/C.4/2010/9.

2. The consequential amendments to Chapter 1.2 and annexes 1, 2 and 3 of the GHS referred to in the above mentioned document are listed hereafter for consideration by the Sub-Committee.

Please recycle

# Proposal

## 1. Amendment to Chapter 1.2

Insert the following definition:

"***Chemically unstable gas*** means a flammable gas that is able to react explosively even in the absence of air or oxygen."

## 2. Amendments to Annex 1

Amend the table for flammable gases to read as follows (*(new text is underlined):*

| **FLAMMABLE GASES** | | | | |
|---|---|---|---|---|
| **Category 1** | **Category 2** | **<u>Additional category of chemically unstable gases: Category 1</u>** | **<u>Additional category of chemically unstable gases: Category 2</u>** | **Note** |
|  <br>**Danger**<br>**Extremely flammable gas** | ***No pictogram***<br>**Warning**<br>**Flammable gas** | ***<u>No pictogram</u>***<br>***<u>No signal word</u>***<br>**<u>May react explosively even in the absence of air</u>** | ***<u>No pictogram</u>***<br>***<u>No signal word</u>***<br>**<u>May react explosively even in the absence of air at elevated pressure</u>** | **Under the *UN Recommendations on the Transport of Dangerous Goods, Model Regulations*, the symbol, number and border line may be shown in black instead of white. The background colour stays red in both cases.** |
|  | **Not required under the *UN Model Regulations*** | **Not required under the *UN Model Regulations*** | **Not required under the *UN Model Regulations*** | |

## 3. Amendments to Annex 2 (new text is underlined)

Amend the table for flammable gases to read as follows (*(new text is underlined)*

| Hazard category | Criteria | Hazard communication elements | |
|---|---|---|---|
| **1** | Gases and gas mixtures, which at 20 °C and a standard pressure of 101.3 kPa:<br>(a) are ignitable when in a mixture of 13% or less by volume in air; or<br>(b) have a flammable range with air of at least 12 percentage points regardless of the lower flammable limit. | Symbol |  |
| | | Signal word | Danger |
| | | Hazard statement | Extremely flammable gas |
| **2** | Gases or gas mixtures, other than those of Category 1, which, at 20 °C and a standard pressure of 101.3 kPa, have a flammable range while mixed in air | Symbol | *No symbol* |
| | | Signal word | Warning |
| | | Hazard statement | Flammable gas |
| **Additional category of chemically unstable gases: Category 1** | Flammable gases which are chemically unstable at ambient temperature and pressure | Symbol | *No symbol* |
| | | Signal word | *No signal word* |
| | | Hazard statement | May react explosively even in the absence of air |
| **Additional category of chemically unstable gases: Category 2** | Flammable gases which are chemically unstable at elevated temperature and/or pressure | Symbol | *No symbol* |
| | | Signal word | *No signal word* |
| | | Hazard statement | May react explosively even in the absence of air at elevated pressure |

## 4. Amendments to Annex 3:

**(a) Section 1, Table A3.1.1: Hazard statement codes for physical hazards**

Insert the following new rows:

| Code<br><br>(1) | Physical hazard statements<br><br>(2) | Hazard class (GHS chapter)<br><br>(3) | Hazard category<br><br>(4) |
|---|---|---|---|
| [H230] | May react explosively even in the absence of air | Flammable gases (chapter 2.2) | Additional category of chemically unstable gases: Category 1 |
| [H231] | May react explosively even in the absence of air at elevated pressure | Flammable gases (chapter 2.2) | Additional category of chemically unstable gases: Category 2 |

**(b) Section 2, Table A3.2.2: Codification of prevention precautionary statements**

Amend the following rows as indicated *(new text is underlined)*

| Code<br><br>(1) | Prevention precautionary statements<br><br>(2) | Hazard class<br><br>(3) | Hazard category<br><br>(4) | Conditions for use<br><br>(5) |
|---|---|---|---|---|
| P202 | **<u>Do not handle until all safety precautions have been read and understood.</u>** | Explosives (chapter 2.1) | Unstable explosive | |
| | | Germ cell mutagenicity (chapter 3.5) | 1A, 1B, 2 | |
| | | Carcinogenicity (chapter 3.6) | 1A, 1B, 2 | |
| | | Reproductive toxicity (chapter 3.7) | 1A, 1B, 2 | |
| | | <u>Flammable gases (chapter 2.2)</u> | <u>Additional category of chemically unstable gases: Categories 1, 2</u> | |
| …. | …….. | ….. | ….. | …. |

**(c) Section 3, A3.3.5: Matrix of precautionary statements by hazard class/category**

Insert the following new table after the current table for flammable gases

## FLAMMABLE GASES
## (Chapter 2.2)
## (Additional category of chemically unstable gases)

| **Symbol** |
|---|
| *No symbol* |

| **Hazard category** | **Signal word** | **Hazard statement** | |
|---|---|---|---|
| 1 | *No signal word* | [H230] | May react explosively even in the absence of air |
| 2 | *No signal word* | [H231] | May react explosively even in the absence of air at elevated pressure |

| **Precautionary statements** | | | |
|---|---|---|---|
| **Prevention** | **Response** | **Storage** | **Disposal** |
| P202<br>**Do not handle until all safety precautions have been read and understood.** | | | |

***Note:*** *This table lists only the precautionary statement that is assigned due to the chemical instability of the gas. For the other precautionary statements that are assigned based on the flammability see the respective tables for flammable gases.*