



**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****Twenty-fourth session**

Geneva, 12 – 14 December 2012

Item 2 (a) of the provisional agenda

**Updating of the Globally Harmonized System of
Classification and Labelling of Chemicals (GHS):
Physical hazards****Dust explosion hazards guidance****Transmitted by the expert from the United States of America on behalf
of the informal correspondence group on dust explosion hazards¹****Introduction**

1. At the 23rd session of the Sub-Committee, the correspondence group met outside the plenary to continue the work on workstreams 1 and 2 (see INF.21 submitted at that session). The purpose of workstream 1 is to review the existing national consensus and reference regulations developed by competent authorities, identify the common pieces of information used to communicate the hazards, and determine how and if this information is to be addressed. The purpose of workstream 2 is to ensure that any information proposed to be included in section 9 of the Safety Data Sheet (SDS) is communicated to the informal working group on Section 9 of Annex 4.

2. This document addresses comments received from the Sub-Committee and incorporates the appropriate changes to the proposals presented at the 23rd session in informal document INF.33.

¹ In accordance with the programme of work of the Sub-Committee for 2011-2012 approved by the Committee at its fifth session (refer to ST/SG/AC.10/C.3/76, par. 116 and ST/SG/AC.10/38, par. 16).

Explanation of the use of “explosible” and “explosive”

3. The Sub-Committee requested that the correspondence group consider the use of the term “explosive” rather than “explosible” in the hazard statement proposed for Section 2 of the SDS guidance in Annex 4.

4. The correspondence group decided at the commencement of the work on dust explosion hazards that “explosible” was an appropriate term to be used for this hazard. The following explanation may help the Sub-Committee better understand the distinction between the two words.

- The Merriam-Webster Dictionary defines “explosible” as “capable of being exploded”. The dictionary provides the following definitions for explosive: relating to, characterized by, or operated by explosion <an *explosive* hatch>; resulting from or as if from an explosion <*explosive* population growth>.
- In addition, the National Fire Protection Association (NFPA), a consensus standard organization in the United States of America, explains that explosives are materials whose main purpose is to function by explosion. On the contrary, for dusts to present an explosion hazard, the dust must be combustible, dispersed in air in sufficient concentration, contained in an enclosure, and have an ignition source. If any of these elements are missing, then the dust will not explode. The hazard and controls for the two categories of materials are greatly different, and therefore it is important to distinguish between them.

5. When considering dust explosion hazards, the correspondence group agreed that dusts are capable of being exploded and are not related to or characterized by an explosion. In addition, dusts accumulate through normal conditions of use and pose a serious hazard under the proper conditions. Therefore, the term “explosible” is the more appropriate term for the hazard statement.

Proposal

6. The correspondence group invites the Sub-Committee to approve the editorial amendments to the GHS proposed below and to include them into its next revised edition.

- (a) For Section 2 of the SDS (Hazard identification):

Amend A4.3.2.3 “Other hazards which do not result in classification” to read as follows (new text is underlined):

“Provide information on other hazards which do not result in classification but may contribute to the overall hazards of the material, for example, formation of air contaminants during hardening or processing, dust explosion hazards, suffocation, freezing or environmental effects such as hazards to soil-dwelling organisms. The statement “May form explosible dust/air mixture if dispersed” is appropriate in the case of a dust explosion hazard.”

- (b) For Section 5 of the SDS (Fire-fighting measures):

Amend A4.3.5.1 “Suitable extinguishing media” to read as follows (new text is underlined):

“Provide information on the appropriate extinguishing media. In addition, indicate whether any extinguishing media are inappropriate for a particular situation involving the substance or mixture (e.g., avoid high pressure media)”

which could cause the formation of a potentially explosible dust/air mixture).”

- (c) For Section 7 of the SDS (Handling and storage):

Amend A4.3.7.1.1 to read as follows (new text is underlined):

“Provide advice that:

- (a) allows safe handling of the substance or mixture;
 - (b) prevents handling of incompatible substances or mixtures;
 - (c) draws attention to operations and conditions which create new risks by altering the properties of the substance or mixture, and to appropriate countermeasures; and
 - (e d) minimizes the release of the substance or mixture to the environment.”
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