

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

23 November 2023

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

Sixty-third session

Geneva, 27 November- 6 December 2023

Item 10 (c) of the provisional agenda

**Issues relating to the Globally Harmonized System:
Miscellaneous**

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

Forty-fifth session

Geneva, 6-8 December 2023

Item 2 (j) of the provisional agenda

**Work on the Globally Harmonized System of
Classification and Labelling of Chemicals: Other
matters**

**Proposal to cover substances and mixtures that emit
flammable vapours in annex 11 of the GHS**

Transmitted by the expert from the United States of America

Introduction

1. At the 44th session, the expert from China submitted a joint informal document INF.16 (GHS, 44th session)-INF.34 (TDG, 62nd session) proposing to add additional hazard communication requirements in the safety data sheet for those substances and mixtures that do not meet the criteria to be classified as flammable solids or flammable liquids but that are capable of emitting flammable vapours. The expert from the United States of America noted that the practical classification issues informal working group already had a similar item on its program of work. Item 1's description is "Consider the need to include in GHS annex 11 hazard communication associated with the hazards of flammable vapours created in the headspace (the unfilled space left above the contents in a sealed container) for solid and liquid substances or mixtures". At the 44th session, the expert from the United States of America volunteered to work with China and to develop a draft outline of the approach that could be taken in annex 11 that would include guidance on assessing the hazard as well as how the hazard can be communicated.

2. While the proposals from China in document ST/SG/AC.10/C.3/2023/55 – ST/SG/AC.10/C.4/2023/8 cover communication of the hazard in various sections of the Safety Data Sheet (SDS) (e.g. section 2, 9, 10) the proposals do not provide guidance on how to identify the hazard nor does it offer guidance to competent authorities and SDS and label preparers on a standardized way to communicate this information on labels or in another formats (e.g. process safety guides/operating instructions). Additionally, it may also be appropriate to communicate the flammable vapour hazard in section 5 "Fire fighting measures" and section 7 "Handling and storage".

3. The annex to this paper presents a draft proposed outline to update annex 11 of the GHS to provide guidance on the scope of the hazard as well as on the identification and communication of a flammable vapour hazard for substances and mixtures not classified as flammable solids or flammable liquids. The structure of the draft outline is similar to the format used to cover the dust explosions hazard in annex 11 of the GHS, however, it has been adapted and simplified for this hazard. Based on feedback from the Sub-Committee, the outline will be updated before work begins to develop the content for each section.

4. The Sub-Committee is invited to provide feedback on the proposal in the annex and on incorporating the proposals in document ST/SG/AC.10/C.4/2023/8 into the scope of the work to develop a new section in annex 11 of the GHS to cover substances and mixtures that emit flammable vapours.

Annex

The following proposal is a draft proposed outline for a new section in annex 11 of the GHS. The text in square brackets provides context on the type of information that could be included in the proposed sections.

“A11.3 Substances and mixtures that emit flammable vapours

This section provides guidance on the factors that contribute to substances and mixtures emitting hazardous flammable vapours for solids and liquids that are not classified as Flammable Solids or Flammable Liquids and on hazard identification.

A11.3.1 *Scope and applicability*

[This sub-section can provide context on the scope of the hazard. For example, the types of activities (e.g., during transport, storage, processing, etc.) that contribute to the evolution of flammable vapours can be described as well as the type of substances and mixtures and/or characteristics of substances and mixtures that have the potential to emit flammable vapours.]

A11.3.2 *Definitions*

[If applicable, this sub-section can provide a definition of terms used that are specific to substances and mixtures that emit flammable vapours for solids and liquids that are not classified as Flammable Solids or Flammable Liquids.]

A11.3.3 *Identification of flammable vapours hazard*

[This sub-section can provide guidance to identify the flammable vapour hazard for substances and mixtures that emit flammable vapours but are not classified as Flammable Solids or Flammable Liquids.]

A11.3.4 *Factors contributing to evolution of flammable vapours*

[This sub-section can provide further information on specific factors that contribute to a flammable vapour hazard for substances and mixtures not classified as Flammable Solids or Flammable Liquids.]

A11.3.5 *Supplemental information for hazard communication*

[This sub-section can provide guidance on the communication of information in various sections of the SDS (e.g. sections 2, 5, 7, 9 and 10). For example, specific reference could be made to the appropriate sections of Annex 4 that correspond to the proposals in document ST/SG/AC.10/C.4/2023/8 (i.e. SDS sections 2, 9 and 10). In addition, this sub-section can provide standardised phrases could be used on labels, SDS and/or in process guides/operating instructions.]”
