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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 Globally  
Harmonized System of Classification  
and Labelling of Chemicals

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Item 3(b) of the provisional agenda

**BUILDING BLOCK APPROACH: GUIDANCE AND IMPLEMENTATION**

Guidance on the GHS building block approach

Transmitted by the expert from Canada

**Background**

**Issue:**

1. Guidance on the application of the *building block approach* included in the GHS document.

**Existing situation**

2. Existing regulatory schemes vary in their coverage and communication of hazards depending on the needs of target audiences/sectors. During the development of the GHS, countries addressed the question of what would be considered “implementation of the GHS” given these varying needs. The text regarding the building block approach was developed to address this situation.

3. The GHS document, adopted by the UN Economic and Social Council, includes:

“1.1.3.1.5 Building block approach

1.1.3.1.5.1 Consistent with the building block approach, countries are free to determine which of the *building blocks* will be applied in different parts of their systems. However, where a system covers something that is in the GHS, and implements the GHS, that coverage should be consistent. For example, if a system covers the carcinogenicity of a chemical, it should follow the harmonized classification scheme and the harmonized label elements.

1.1.3.1.5.2 In examining the requirements of existing systems, it was noted that coverage of hazards may vary by the perceived needs of the target audience for information. In particular, the transport sector focuses on acute health effects and physical hazards, but has not to date covered chronic effects due to the types of exposures expected to be encountered in that setting. But there may be other differences as well, with countries choosing not to cover all of the effects addressed by the GHS in each use setting.

1.1.3.1.5.3 The harmonized elements of the GHS may thus be seen as a collection of building blocks from which to form a regulatory approach. While the full range is available to everyone, and should be used if a country or organization chooses to cover a certain effect when it adopts the GHS, the full range does not have to be adopted. While physical hazards are important in the workplace and transport sectors, consumers may not need to know some of the specific physical hazards in the type of use they have for a product. As long as the hazards covered by a sector or system are covered consistently with the GHS criteria and requirements, it will be considered appropriate implementation of the GHS. Notwithstanding the fact that an exporter needs to comply with importing countries GHS implementation, it is hoped that the application of the GHS worldwide will eventually lead to a fully harmonized situation.”

4. The GHS provides different hazard labelling requirements for the transport of dangerous goods and the other sectors involved in supply. The labelling for the transport of dangerous goods involves a pictogram as included in Annex 1 of the GHS document. The other sectors involved in supply include a pictogram and label elements as detailed in Chapter 1.4 of the GHS document.

## Discussion

5. The selection of which building blocks will form the regulatory approach for a particular sector, i.e., the hazard classes and appropriate hazard categories for a particular sector, are at the discretion of the competent authority.

6. There are two considerations to the building block approach:

(a) Is each regulatory scheme expected to adopt each GHS hazard class?

No, not all hazard classes are applicable to all target audiences/sectors. For example, products subject to the transport of dangerous goods are not subject to chronic hazard information disclosure requirements. Under the GHS, the transport sector would not need to include chronic hazards in their system. Therefore, if a current regulatory approach within a sector does not include consideration of certain hazard classes, the building block approach provided by the GHS allows that sector to maintain their existing hazard class coverage when the GHS is implemented in that sector.

(b) Is each regulatory scheme expected to adopt each category within each hazard class?

No. If the current regulatory approach within a sector does not cover certain categories of lower hazard within a hazard class, the GHS building block approach allows that sector to continue to include only those categories currently covered in their system when the GHS is implemented in that sector. For example, Category 2 of Flammable gases is not included in the *UN Recommendations for the Transport of Dangerous Goods, Model Regulations*. Under the GHS, the transport of dangerous goods sector will not need to include Category 2 in their system. Similarly, some competent authorities for the consumer sector currently do not classify or label consumer chemical products that would

fall within Category 4 for Flammable liquids under the GHS. Under the GHS, these authorities may not adopt Category 4 Flammable liquids in their system. Therefore, sectors can maintain the existing extent of coverage of hazard categories in a hazard class within the structure of the GHS.

7. Note that categories cannot be split or re-combined as that would be equivalent to establishing new cut-offs/concentration limits. For example, a sector could adopt Categories 1, 2 and 3 of acute toxicity, but a sector could not choose to adopt 1, 3 and 5. The categories must be chosen in sequence, starting from Category 1.

8. Also, label elements in each category must be used only for that specific category.

9. Once a hazard class and category is chosen by a sector and if that sector provides hazard information for that particular hazard, then the standardized GHS label elements, i.e., pictograms for all sectors and signal words and hazard statements for all sectors other than transport, would be expected as part of GHS implementation by that sector under the GHS.

10. The GHS document notes that all sectors should use the GHS classification criteria for hazard class(es)/category(ies) covered by a particular sector. However, at the competent authority's discretion, label information can be based on risk rather than hazard. In addition, competent authorities may require a Safety Data Sheet based on the GHS requirements.

### **Proposal**

1. Amend the GHS document as follows:

In, 1.1.3.1.5, replace paragraphs 1.1.3.1.5.1 to 1.1.3.1.5.3 with the following text:

“1.1.3.1.5.1 The selection of which hazard classes and appropriate hazard categories for a particular sector, i.e., the GHS building blocks, are at the discretion of the competent authority.

1.1.3.1.5.2 There are two considerations to the building block approach:

(a) Is each competent authority expected to adopt each GHS hazard class?

No, not all hazard classes are applicable to all target audiences/sectors. For example, products subject to the transport of dangerous goods are not subject to chronic hazard information disclosure requirements. Under the GHS, the transport sector would not need to include chronic hazards in their system. Therefore, if a current regulatory approach within a sector does not include consideration of certain hazard classes, the building block approach provided by the GHS allows that sector to maintain their existing hazard class coverage when the GHS is implemented in that sector.

(b) Is each competent authority expected to adopt each category within each hazard class?

No. If the current regulatory approach within a sector does not cover certain categories of lower hazard within a hazard class, the GHS building block approach allows that sector to continue to include only those categories currently covered in

their system when the GHS is implemented in that sector. For example, Category 2 of Flammable Gases is not included in the *UN Recommendations for the Transport of Dangerous Goods, Model Regulations*. Under the GHS, the transport of dangerous goods sector will not need to include Category 2 in their system. Similarly, some competent authorities for the consumer sector currently do not classify or label consumer chemical products that would fall within Category 4 for Flammable liquids under the GHS. Under the GHS, these authorities may not adopt Category 4 Flammable liquids in their system. Therefore, sectors can maintain the existing extent of coverage of hazard categories in a hazard class within the structure of the GHS.

1.1.3.1.5.3 Note that it would be inconsistent with the GHS to split or re-combine categories within a hazard class, as that would be equivalent to establishing new cut-offs/concentration limits. For example, it would be consistent with GHS for a sector to adopt Categories 1, 2 and 3 of acute toxicity, but it would not be consistent with GHS for a sector to adopt 1, 3 and 5. The categories must be chosen in sequence, starting from Category 1.”

Add the following new paragraphs:

“1.1.3.1.5.4 Standardized label elements which have been assigned to each category should be used only for that specific category.

1.1.3.1.5.5 Once a hazard class and category is chosen by a sector and if that sector provides hazard information for that particular hazard, then the standardized GHS label elements, i.e., pictograms for all sectors and signal words and hazard statements for all sectors other than transport, would be expected as part of GHS implementation by that sector under the GHS.

1.1.3.1.5.6 At the competent authority’s discretion, label information can be based on risk rather than hazard (see 1.4.10.5.5.2). In addition, competent authorities may require a Safety Data Sheet based on the GHS requirements.

1.1.3.1.5.7 As long as the hazards covered by a sector or system are covered consistently with the GHS criteria and requirements, it will be considered appropriate implementation of the GHS. Notwithstanding the fact that an exporter needs to comply with importing countries' GHS implementation, it is hoped that the application of the GHS worldwide will eventually lead to a fully harmonized situation.”

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