

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

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

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Item 8 (a) of the provisional agenda

**Issues relating to the Globally Harmonized System
of Classification and labelling of chemicals:
Corrosivity criteria**

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

Twenty-fourth session

Geneva, 12 – 14 December 2012

Item 4 (c) of the provisional agenda

**Implementation of GHS:
Cooperation with other bodies or international
organisations**

**Implementation of GHS corrosivity criteria in the Model
Regulations**

Transmitted by the expert from the Netherlands

Introduction

1. In December 2011, the GHS-TDG working group reached among others the following conclusions (see INF.28/Rev.1 (GHS)):

- (a) Hazard classification for transport purposes should be dissociated from transport conditions (i.e.: assignment of packing groups);
- (b) Bearing in mind the significant downstream consequences of changing transport conditions (e.g.: changing from Packing group II to Packing Group I) for corrosive substances, they should be revised only when it can be demonstrated that they do not provide the adequate level of safety;
- (g) Most experts considered that the aspiration was one classification for a substance or mixture for both transport and supply/use and based on hazard, with Packing Groups for transport assigned on the basis of hazard and risk.

2. In June 2012, the expert from the United Kingdom suggested as a possible way forward a revision of the relation between GHS sub-categories and packing group assignment (INF.53 (41st session TDG) – INF.18 (23rd session GHS)). In document INF.16 (TDG) – INF.8 (GHS) submitted for this session, CEFIC proposes to incorporate the GHS classification criteria into the Model Regulations and to insert additional criteria or other factors for assignment of packing groups. The expert from the Netherlands supports the conclusions of the GHS-TDG working group and supports in principle the rationale upon which the proposals of the United Kingdom and CEFIC are built.

3. The expert from the Netherlands considers that the GHS criteria are within the domain of the GHS Sub-Committee. The GHS criteria and the accompanying classification process and decision making schemes should be used as an input for the assignment of class, packing group and subsidiary risks (i.e. transport classification) and subsequently the assignment of transport conditions.

4. The expert from the Netherlands also believes that it is the exclusive domain of the TDG Sub-Committee and the modal bodies to assign transport conditions to substances and mixtures. The appropriate transport conditions are based on many aspects amongst which the degree of hazard is an important factor. Level of acceptable risk, likelihood of exposure, experience, current practices and costs are also taken into account.

Considerations for further work

5. Considering the above, the expert from the Netherlands suggests that further work of implementation of GHS criteria in the Model Regulation takes the following principles into account. While it is realized that many aspects still need further consideration, this approach is offered as a possible way forward.

(a) GHS criteria and the accompanying classification process and decision making schemes are used to derive a (sub-)classification. The GHS decision making schemes are applied irrespective of whether the information used is *in vivo* or *in vitro* results or alternative information. Differences in interpretation of criteria and terminology that can contribute to divergence in classifications can be minimized by closely reproducing the GHS text in the Model Regulations. Subsequently, assignment of Class, packing group and subsidiary risk (i.e. the transport classification) can be made together with the assignment of transport conditions;

(b) A relation between hazard categories from GHS and transport classification remains and is the basis for a rationalized approach. However, the rationalized approach should also take into account additional criteria or other factors for the transport classification and the assignment of transport conditions;

Further work is needed to identify the most suitable criteria and other factors and to determine the applicable threshold limits. Clear thresholds will increase consistency in transport classification and enable self-classification in the case of non-listed goods;

(c) The rationalized approach developed should be suitable for all substances and mixtures, including entries for named substances and N.O.S (not otherwise specified) entries. As a consequence the current difference in transport classification between substances listed by name in the dangerous goods list and for substances not listed by name (see 2.8.2.2 in Chapter 2.8 of the Model Regulations) may be reconsidered.

6. Table 1 provides an example of how these principles can be used in practice. The Sub-Committee is invited to take these considerations into account for further work of implementing the GHS corrosivity criteria into the Model Regulations.

Table 1

GHS		Transport		
GHS criteria	GHS sub-classification	Transport class	Rational for the assignment of packing group using additional criteria and considerations	Packing group
Exposure \leq 3 min, observation \leq 1 hour	Skin Corr 1A	Class 8	Volatility and/or reactivity with water and/or etc	Very dangerous PG I
			-----	Medium danger PGII
Exposure $>$ 3 min but \leq 1 hour, observation \leq 14 day	Skin Corr 1B	Class 8	-----	Medium danger PGII
Exposure $>$ 1 hour but \leq 4 hours, observation \leq 14 day	Skin Corr 1C	Class 8	-----	Minor danger PG III