

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 Transport of Dangerous Goods

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**Issues relating to the Globally Harmonized System
of Classification and Labelling of Chemicals (GHS)**

Comments on ST/SG/AC.10/C.3/2010/10 (Netherlands)

Transmitted by Cefic (European Chemical Industry Council)

Introduction

1. CEFIC welcomes the proposal of the Netherlands to use the results of the classification, based on the GHS, for transport purposes. It will help in future to align the classification criteria and to make the labelling for use and transport more consistent.
2. CEFIC is nevertheless of the opinion that it is too early to harmonise with the GHS criteria, because these criteria are currently still under discussion in the GHS Sub-Committee. CEFIC indeed attended the informal GHS working group on the revision of chapter 3.2. and 3.3, where it has been agreed to rework the flow chart regarding the classification steps for corrosive materials. CEFIC is therefore of the opinion that this work should be finished, before any reference or reproduction of the classification criteria from GHS in the UN Model regulations regarding the classification criteria for class 8 is made. Furthermore there is little or no experience with the application of the GHS criteria whereas TDG criteria has been used for many years. Cefic therefore fails to see the need for acting in a hurry.
3. Whereas it makes sense to use the classification based upon GHS, it should remain an option rather than becoming mandatory. This should be made clear by just a note allowing the use of the GHS classification criteria rather than reproducing parts of it in the UN Model Regulations.
4. To align the first part of chapter 2.8 with the wording of GHS is useful. Therefore we support the changes in 2.8.1 and 2.8.2. The discussion about adding the word “mixtures” to the text is a formal aspect. It seems that everybody agrees that pure substances and mixtures should be taken into consideration. This is in GHS covered by the word “chemical”.
5. Regarding the table in 2.8.3.1 showing the relationship between the PG and the GHS skin corrosion categories, Cefic wants to comment as follows: in case the GHS classification does not give the sub-categories, but only the category 1, it cannot be used for the classification according to the UN Model Regulations. If there are conflicting assignments to packing groups (see Annex), because a substance or mixture has been assigned to a specific packing group in table A and the application of the GHS criteria results in a different packing group, the packing group assigned in table A prevails over the GHS criteria for transportation. (Typical example: phosphoric acid or sodium hydroxide)

Proposal

The following changes to the text proposed in ST/SG/AC.10/C.3/2010/10 are listed below:

6. Amend the first paragraph of 2.8.3.1 as follows:

“2.8.3.1 The criteria for skin corrosion listed in 2.8.2.5 are included in Chapter 3.2 of the GHS. In addition the GHS describes methods to determine if a substance meets the criteria for skin corrosion based on alternative information. These additional GHS classification methods ~~shall~~ may be used to assign the packing group in cases where the information mentioned in 2.8.2.4 is not available for the substance or mixture. A classification of a mixture based on results from *in vivo* and *in vitro* methods, prevails over a classification derived using the alternative methods.”.
7. Either delete the table in 2.8.3.1 or amend the text above the table as follows:

“The relationship between packing groups and GHS skin corrosion categories ~~is~~ may be indicated as follows:”.
8. Delete subsection 2.8.3.2.

Annex

When looking at the classification for substances in Annex VI of the EU regulation 1272/2008/EC, which are assigned (beside perhaps other hazards) to the hazard “skin corrosion 1B” compared with the entries for these substances in the table 3.2 of the UN Model regulations, there are many discrepancies:

- Substances, which are not linked to the class 8 (as subsidiary risk)⇒ marked in yellow
- Substances with a higher packing group ⇒ marked in pink
- Substance with a lower packing group ⇒ marked in orange

The attached list is just an extract and doesn't give a complete list. It has been set up to demonstrate that the correlation between packing group and subcategories according to GHS is not as easy, as it seems to be for the hazard of skin corrosion.

name	CAS-No	Annex VI CLP	UN Model regulations
phosphine	7803-51-2	1B	2.3 (2.1) (UN 2199)
nitrogen dioxide; [1]ammonia%;			
dinitrogen tetraoxide [2]	10102-44-0 [1]; 10544-72-6 [2]	1B	2.3 (5.1, 8)
ammonia, anhydrous	7664-41-7	1B	2.3 (8) (UN1005)
sulphur dioxide	7446-09-5	1B	2.3 (8) (UN1079)
boron trichloride	10294-34-5	1B	2.3 (8) (UN1741)
ammonia%	1336-21-6	1B	2.3 (8) (UN3318), 2.2 (UN2073), 8 III (UN2672)
3-iodopropene; allyl iodide	556-56-9	1B	3 (8), II (UN1723)
sodium	7440-23-5	1B	4.3, I
lithium	7439-93-2	1B	4.3, I (UN 1415)
potassium	7440-09-7	1B	4.3, I (UN 2257)
ammonium dichromate	7789-09-5	1B	5.1, II (UN 1439)
silver nitrate	7761-88-8	1B	5.1, II (UN 1493)
calcium hypochlorite	7778-54-3	1B	5.1, II or III (UN 1748)
dimethyl sulphate	77-78-1	1B	6.1 (8), I
sulphuryl chloride	7791-25-5	1B	6.1 (8), I
titanium tetrachloride	7550-45-0	1B	6.1 (8), I
hexachlorocyclopentadiene	77-47-4	1B	6.1, I (UN2646)
diarsenic trioxide; arsenic trioxide	1327-53-3	1B	6.1, II (UN1561)
mercury dichloride; mercuric chloride	7487-94-7	1B	6.1, II (UN1624)
hydrazine	302-01-2	1B	8, I
antimony trichloride	10025-91-9	1B	8, II
phosphorus pentachloride	10026-13-8	1B	8, II
fluoroboric acid ... %	16872-11-0	1B	8, II
fluorosilicic acid ... %	16961-83-4	1B	8, II
phosphorus tribromide	7789-60-8	1B	8, II
dipotassium sulphide; potassium sulphide	1312-73-8	1B	8, II (UN1847)
disodium sulphide; sodium sulphide	1313-82-2	1B	8, II (UN1849)
hydriodic acid ... %		1B	8, II or 8, III (UN1787)
hydrobromic acid ... %		1B	8, II or 8, III (UN1788)

name	CAS-No	Annex VI CLP	UN Model regulations
hydrochloric acid ... %		1B	8, II or 8, III (UN1789)
2-aminoethanol; ethanolamine	141-43-5	1B	8, III (UN 2491)
tin tetrachloride; stannic chloride	7646-78-8	1B	anhydrous 8, II (UN UN1827); pentahydrate 8, III
zinc chloride	7646-85-7	1B	anhydrous 8, III (UN 2331)
antimony pentachloride	7647-18-9	1B	liquid 8, II (UN 1730), solution 8, II or III (UN1731)
2-(3-(prop-1-en-2-yl)phenyl)prop-2-yl isocyanate	2094-99-7	1B	no isocyanates with subsidiary risk 8
potassium bifluoride; potassium hydrogen difluoride	7789-29-9	1B	solid 8, 6.1, II (UN 1811), solution 8 (6.1) II or III (UN 3421)
phosphoric acid ... %, orthophosphoric acid ... %	7664-38-2	1B	solid 8, III (UN3453), solution 8, III (UN1805)
aluminium chloride, anhydrous	7446-70-0	1B	solution 8, III (UN 2581), anhydrous 8, II (UN1726)
N,N-dimethylhydrazine	57-14-7	1B	unsymmetrical 6.1 (3,8), I (UN1163); symmetrical 6.1 (3), I (UN2382)
dimethylzinc; [1]zinc chloride;diethylzinc [2]	544-97-8 [1]; 557-20-0 [2]	1B	zinc chloride solution or anhydrous 8,III