

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

Fifteenth session,
Geneva, 9-11 July 2008
Item 5 (c) of the provisional agenda

IMPLEMENTATION OF THE GHS

Development of lists of classification

Transmitted by the United Nations Institute for Training and Research (UNITAR)

1. The purpose of this paper is to raise an additional implementation issue for consideration by the Subcommittee, and possible referral to the established Implementation Work Group. It has developed as regions and countries move towards adoption and implementation of the GHS. This paper does not reflect a particular stance from UNITAR. Rather, as the focal point for capacity building, the issue has been noted by UNITAR from the outcomes of project activities.
2. The GHS is designed to be a self-classification system, providing criteria to define physical, health, and environmental hazards. The criteria are detailed in nature, and are supplemented by guidance (including decision logics) to assist those performing the classifications. It was expected that application of the criteria in association with the guidance would lead to consistent classifications worldwide, and subsequently consistent hazard communication. The primary difference when shipping to different countries would be to translate the label to the language of the country it was being sent to, but the information would be essentially the same.
3. The hazard classification process under the GHS is highly technical in nature, and requires a certain background and level of expertise to perform it accurately. In order to help companies comply, as well as ensure a consistent approach, some competent authorities have chosen to develop lists of classifications, primarily for substances that are commonly produced and used. Since most experts are involved primarily in the implementation of the GHS in one country or region, they may not be aware of what other systems are doing in their classification lists.
4. Unfortunately, the result of the list-based approach has been the development of lists that may be creating disharmony to some extent, and lead to increased complexity in performing a hazard classification for a product that is distributed internationally. An examination of these lists for the same substance reveals differing classifications in many instances. These differences are not insignificant, and lead to varying hazard communication—which the GHS was intended to prevent. See Annex 1 for an illustration of the differences in classification of toluene under four lists.

5. In addition to the apparent difference in classification and hazard communication, there are other issues associated with the proliferation of lists. Companies involved in multi-national distribution of chemicals must obtain access to these lists in order to comply with the requirements of the countries involved. Since the lists are generally in the language of the country involved, this may also require translation of the list. In other cases, the lists are not made available to them. Availability and accessibility both affect the ability of multi-national companies to comply.

6. The information in the various lists currently available is also displayed in different ways, and thus accessing the information in them is difficult when a number of lists must be consulted. In some cases, the information is coded for the country rather than using the GHS language directly, which also requires some translation.

7. The development of these lists is not always transparent in terms of being able to determine what data were used as a basis for the list. This is particularly important when there are major differences between different countries. Availability of the database used for the classifications would be helpful in this regard. There are also different approaches to be followed if a company wishes to dispute or challenge a classification appearing on a list. In some cases, this has been permitted and expert information has been introduced that has led to changes in classifications. In others, there is no dispute mechanism available. Having different classifications for the same product when shipped to different countries not only creates burdens that were intended to be alleviated by the GHS, it may also create difficulties in different countries' legal systems for liability.

8. The appeal of such a list-based approach is clear in terms of facilitating national compliance and providing consistency within one system. However, the development of this approach in multiple countries around the world may be resulting in unintended consequences for the international implementation success of GHS adoption.

9. The first issue is why the classifications are resulting in different findings. There may be a need for more guidance to help to ensure consistency regardless of who is performing the classifications.

10. The second issue that should be considered is whether there is a need for an internationally-developed and maintained list. This would obviously entail significant resources, but could provide assistance to many countries and companies in facilitating GHS implementation. One resource that could be considered to form a basis for such an approach could be the International Chemical Safety Cards. These cards are intended to be updated to reflect classifications by GHS criteria, and are already translated into many different languages. If they are to be used for this purpose, a mechanism for broader participation may be required. Multinational companies may also be an important resource to assist in resolving this issue.

11. There are also a number of technical issues that may need to be addressed with regard to lists in the future—such as how they are updated; whether their use is mandatory or voluntary in a system; and how impurities are addressed. All of these issues affect the impact of the lists on international harmonization.

12. Regardless of the approach, or combination of approaches, the Subcommittee determines to be appropriate, it appears that this issue needs to be addressed in the short-term before additional lists are developed.

Annex

The following table describes the hazard classifications for Toluene from four classification lists. There are other lists available that address toluene as well, but these four serve to illustrate the types of differences found. The classifications are taken from a database of lists.* Additional differences result from other aspects of classification, such as the inclusion of specific warnings for target organs. For toluene, as an example, List D indicates classifications for 3 different target organ effects for single exposure (central nervous system, respiratory irritation, and narcotic effects), as well as repeated exposure effects for central nervous system, kidney and liver.

Toluene classifications

Hazard Category Listed	List A	List B	List C	List D
Flammable Liquid Category 2	X	X	X	X
Acute Aquatic Toxicity Category 2	X			
Acute Aquatic Toxicity Category 3			X	
Acute Toxicity Inhalation Category 4	X			X
Acute Toxicity Oral Category 4			X	
Acute Toxicity Oral Category 5	X			
Aspiration Hazard Category 1	X	X	X	X
Serious Eye Damage/Irritation Cat 2B	X		X	
Skin Corrosion/Irritation Category 2	X	X	X	X
Specific Organ Systemic Toxicity (Repeated Exposure) Category 1	X			X
Specific Organ Systemic Toxicity (Repeated Exposure) Category 2		X	X	
Specific Organ Systemic Toxicity (Single Exposure) Category 1	X			X
Specific Organ Systemic Toxicity (Single Exposure) Category 2		X		
Reproductive Toxin Category 1A	X			X
Reproductive Toxin Category 2		X		

Similar comparisons were done for lead, formaldehyde, and toluene diisocyanate, and significant differences in classification were found for these chemicals as well.

* *CHEMADVISOR, Inc., Pittsburgh, Pennsylvania, USA, provided access to the database of lists they have obtained, translated, and maintain.*
