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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 6 of the provisional agenda

Sub-Committee of Experts on the
Transport of Dangerous Goods

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Item 7 of the provisional agenda

Improvement of hazard communication

Systematic approach for colours and appearance of pictograms (placards) according to the GHS classification

Transmitted by the International Technical Committee for the prevention and Extinction of Fire (CTIF)

Background

The TDG sub-committee has accepted CTIF's proposal to include a review of the 'Provisions for labels' set out in paragraph 5.2.2.2 of the Model Regulations within its work programmes for the 2005/06 biennium.

The aim of the review would be to develop a systematic approach for colours and appearance of pictograms (placards), according to the GHS classification, in order to better meet the needs of target audiences.

The proposal to establish a working group which should carry out this review was not accepted.

Since then CTIF has received several comments on the thought starter presented in ST/SG/AC.10/C.3/2004/89 and ST/SG/AC.10/C.4/2004/18. Most important comments were that the existing labelling system should only be amended if the benefit outweighs the cost of change and effort for training of the users.

Pictograms are the most important means of hazard communication to emergency responders (police, fire service, ambulances) because they can always be found on transport units at incident sites. Therefore visibility from a distance is a very important issue.

CTIF is asking the experts of TDG to consider the following as guiding principles for drafting pictograms

Guiding principle for pictograms (labels) within the harmonized system

1. Pictograms should convey information about hazards and physical states to the end users.
2. Communication with pictograms should be done with
 - Symbols in combination with colours and colour patterns identifying the hazard
 - Symbols identifying the physical state
 - A graphical scale identifying the level of hazard as it is done in class 7 in the few cases where the different levels change the first actions of emergency responders
 - A numerical code for other information, e.g. Package Group, Class.

3. These coded elements should be as few as possible and as simple as possible to ease the training processes required by this type of information.

Current status

Amongst the areas for consideration are:

- The similar pictograms (placards) for flammable liquids and flammable gases
- White symbol e.g. flame, on a dark background is much more visible from a distance than a black one (some colours such as red are difficult to see in low light conditions)
- The introduction of the physical state of a released product because the right measures to minimize the damage for the environment are mostly different for gases, liquids and solids.
- Information about the hazard level is only required if it would change the initial response actions. This is the case for flammable liquids depending on the ambient temperature, and substances, which in contact with water emit flammable gases.
- Deeply refrigerated, liquefied gases when releases present a severe health hazard to responders, thus they should be dealt with as an endpoint.
A symbol for these substances could be



Conclusion

CTIF asks the TDG and GHS sub-committees for comments on the following suggestions

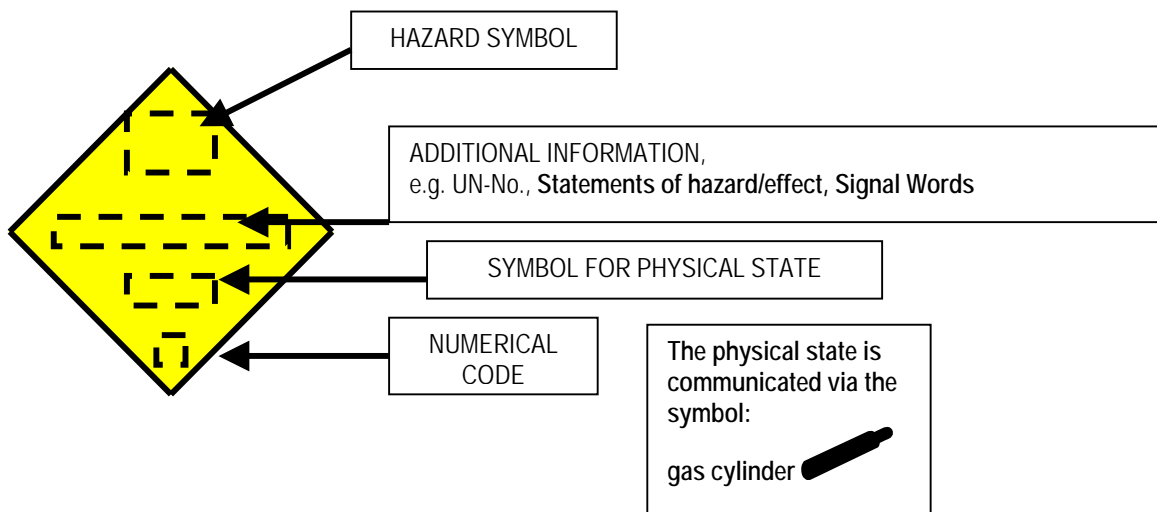
- As an indicator for gases a gas-cylinder should be shown on all pictograms representing gas
- Only white symbols should appear on black, green, red and blue background
- Deeply refrigerated, liquefied gases should be considered as an endpoint and communicated accordingly






Examples are given in the annex.





CTIF wants to submit a proposal for the July meetings 2007.



Annex

COMPONENTS OF PICTOGRAMS



PHYSICAL HAZARD	SYMBOL for physical hazard	ENDPOINT	PICTOGRAM	
			GAS	LIQUID
FLAMMABILITY	<i>Flame</i>			
		FLAMMABLE GASES		
		FLAMMABLE LIQUIDS		
		SUBSTANCES which in contact with water emit flammable gases		
		ORGANIC PEROXIDES		

PHYSICAL HAZARD	SYMBOL for physical hazard	ENDPOINT	PICTOGRAM
			GAS
OXIDIZING	<i>Flame over circle</i>		
		OXIDIZING GASES	
CORROSIVITY	<i>Drops from tubes on hand and plate</i>	CORROSIVE GASES	
			

PHYSICAL HAZARD	SYMBOL for physical hazard	ENDPOINT	PICTOGRAM
			GAS
	Gas cylinder	GASES UNDER PRESSURE	
	Ice crystal	DEEPLY REFRIGERATED LIQUIFIED GASES	

PHYSICAL HAZARD	SYMBOL for physical hazard	ENDPOINT	PICTOGRAM
			GAS
ACUTE TOXICITY	Skull with crossed bones	ACUTE TOXICITY Inhalation	