

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

30 June 2010

Nineteenth session

Geneva, 30 June – 2 July 2010

Item 2(d) of the provisional agenda

Consideration of issues relevant to safety data sheets (SDSs)

Additional information on the proposal regarding the use of Precautionary Statement P410 for gas cylinders

Transmitted by the expert from the United States of America

I. Introduction

1. The U.S. and the Responsible Packaging Management Association of Southern Africa (RPMASA) have been engaged in ongoing discussions concerning the application of the precautionary statement, P410 (Protect from sunlight), to gas cylinders. The U.S. would like to provide comments to supplement the information provided by RPMASA in the Informal paper 33.

II. Background

2. The U.S. believes a consensus path forward will need to balance the technical parameters involved with this issue while remaining consistent with the overarching principles documented in GHS paragraph 1.4.10.5.2, Information required on a GHS label, (c) Precautionary statements and pictograms: "...The GHS label should include appropriate precautionary information, the choice of which is with the labeller or the competent authority. Annex 3 contains examples of precautionary statements, which can be used, and also examples of precautionary pictograms, which can be used where allowed by the competent authority."

3. The Annex to this document presents the U.S. proposal previously discussed with RPMASA that seeks to accommodate RPMASA's perspective while maintaining the level of protection required in the U.S. The U.S. would like to highlight the following points:

- The U.S. Chemical Safety Board investigated a fire that swept through a gas repackaging plant in St. Louis, Missouri in June 2005. This fire launched dozens of exploding cylinders into the surrounding community and struck nearby homes, buildings, and cars, causing extensive damage and several small fires. The CSB subsequently released a Safety Bulletin identifying storage of gas cylinder in sunlight as one of the major contributing factors to the incident.
- Recent discussions between the RPMASA and United States Compressed Gas Association (CGA) have identified that the two countries use gas cylinders designed according to different specifications.

III. Proposal

4. The U.S. recommends that discussions on the use and application of P410 (Protect from sunlight) continue in the Precautionary Statements correspondence group.

Annex

1. The U.S. thoroughly evaluated the proposal from South Africa to remove the Precautionary Statement P410 (Protect from Sunlight) from application to gases under pressure for gas cylinders only, not tanks or other receptacles. The U.S. expressed its concern about removing the P410 statement for gases under pressure specifically, liquefied gases.

2. The U.S. takes issue with the removal of the P410 precautionary statement without application of another precautionary statement to address the concern about cylinders exposed to ambient temperatures above 125°F (51.6°C). The proposal offered by Germany suggesting conditions for use ("not necessary for common industrial and medical gases in transportable gas cylinders that are not subject to (slow) decomposition or polymerization") does not satisfy our concern for liquefied gases. Here are our concerns.

3. P410 applies to gases under pressure, including compressed gases, liquefied gases, and dissolved gases. The requirements for filling gas cylinders with liquefied gases are based on fill density (fill ratio). The fill density is based on filling the cylinders at specific maximum temperatures - in Europe, it is 65°C (149°F), and in the U.S., it is 130°F (54.4°C). The amount of product placed in the cylinder is established so that the cylinder will **not be** liquid full. The United Nations' Recommendations on the Transport of Dangerous Goods and the U.S. Department of Transportation (DOT) follow these same requirements for establishing fill densities for gas cylinders.

4. In the United States, the requirements are established by the U.S. DOT. To meet these requirements, the U.S. Compressed Gas Association (CGA) has set industry standards (P-1) that provide a safety margin of 5°F. This standard also requires that cylinders not be stored in the sun in locations where the ambient temperature exceeds 125°F. [As mentioned in previous discussions, there are regions of the U.S. where temperatures reach 120°F.] When storage occurs in the sun and on asphalt, the temperature easily reaches 125°F.

5. The U.S. offered a solution that they felt satisfied all parties, as follows:

If we (the competent authority) remove P410 from application to gases under pressure (gas cylinders only); **then** we apply P412 (Do not expose to temperatures exceeding 50°C/122°F) to gases under pressure (gas cylinders only).

We suggest that the conditions of use include a statement allowing the competent authority to decide whether to apply P410 or not. The authority may also decide to apply both P410 and P412.

We also proposed text changes to GHS Table A.3.2.4, which are presented below:

Code (1)	Storage precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P410	Protect from sunlight.	Flammable aerosols (chapter 2.3)	1, 2	The competent authority may decide not to apply P410 to gas cylinders.
		Gases under pressure (chapter 2.5)	Compressed gas	
			Liquefied gas	
			Dissolved gas	
		Self-heating substances and mixtures (chapter 2.11)	1, 2	
Organic peroxides (chapter 2.15)	Types A, B, C, D, E, F			
P411	Store at temperatures not exceeding ...°C/...°F.	Self-reactive substances and mixtures (chapter 2.8)	Types A, B, C, D, E, F	... Manufacturer/supplier or the competent authority to specify temperature.
		Organic peroxides (chapter 2.15)	Types A, B, C, D, E, F	
P412	Do not expose to temperatures exceeding 50 °C/ 122 °F.	Flammable aerosols (chapter 2.3)	1, 2	The competent authority may apply P412 to gas cylinders.
		Gases under pressure (chapter 2.5)	Compressed gas	
			Liquefied gas	
		Dissolved gas		
