

**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**

12 April 2012

Twenty-third session

Geneva, 4 (p.m) – 6 July 2012

Item 3 of the provisional agenda

Hazard communication issues

Fire extinguishers

Transmitted by the expert from Argentina

I. Background

1. By definition, gases under pressure are gases which are contained in a receptacle at a pressure of 200 kPa (gauge) or more, or which are liquefied or liquefied and refrigerated. (Chapter 2.5).
2. The fire extinguishers are metal containers with an extinguishing agent and a propellant gas but they are not considered to be either aerosols or cylinders under pressure (except the containers of carbon dioxide), where the gas is the extinguishing agent. All of them however are under a pressure between 4 and 75 times greater than 200kPa.
3. The pressurized gas cylinders have steel walls with a thickness ranging between 5.4 mm and 8.0 mm.
4. Fire extinguishers have a wall of steel or aluminium with a thickness of 1.5 mm and 2.7 mm, (except for carbon dioxide extinguishers that have a steel wall of 5.4 mm) and this makes them more fragile to shocks or punctures than the pressurized gas cylinders.
5. The exposure to temperatures higher than 54°C (130°F) can significantly increase the internal pressure with hazard of explosion.
6. A blow can deform or pierce the wall of the fire extinguisher and can cause an explosion.

II. Accidents produced by the use of fire extinguishers

Table 1

<i>Country</i>	<i>Date</i>	<i>Injuries</i>	<i>Deaths</i>	<i>Cause</i>
Argentina	2004	0	1	Explosion
New Zealand	2005	1	1	Valve rupture
Peru	2006	0	1	Explosion
Chile	2008	0	1	Explosion
Spain	2009	0	1	Explosion
Spain	2010	0	0	Discharge
Spain	2010	0	0	Explosion
Spain	2011	1	0	Explosion
United States	2011	1	0	Explosion
India	2011	3	0	Explosion

Table 2

<i>Organization</i>	<i>Date</i>	<i>Injuries</i>	<i>Deaths</i>	<i>Cause</i>
NEW FLAME	2001	0	1	explosion
M.A.C.	2007	0	1	explosion
M.A.C.	2007	several	0	explosion
M.A.C.	2010	0	0	explosion
CPSC	2011	several	0	different causes

References

M.A.C.: Maritime Accident Casebook (Philippines)

New Flame: (United Kingdom)

CPSC: Consumer Product Safety Commission (United States)

III. Proposal

7. Add a note under table 2.5.1 to read as follows:

“NOTE: Fire extinguishers fall within the scope of this chapter and should be classified in accordance with the criteria in table 2.5.1 and be labelled with the related hazard communication elements in table 2.5.2.”