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COMMITTEE OF EXPERTS ON THE TRANSPORT OF
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$\frac{\text { Sub-Committee of Experts on the }}{\text { Transport of Dangerous Goods }}$
Transport of Dangerous Goods
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Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals

Eleventh session, 12(p.m.)-14 July 2006
Item 2 (a) of the provisional agenda

# INTERNATIONAL HARMONISATION EXEMPTION PRESSURES <br> Proposal to harmonize the values in UN Recommendations, GHS and RID/ADR <br> Transmitted by the European Industrial Gases Association (EIGA) 

## Introduction

The UN Recommendations on the Transport of Dangerous Goods, Model Regulations, fourteenth revised edition, exempts in 2.2.2.3 - Gases of Division 2.2, other than refrigerated liquefied gases if they are transported at a pressure of less than 280 kPa at $20^{\circ} \mathrm{C}$.

The Globally Harmonized System of Classification and Labelling of Chemicals (GHS), first revised edition, considers in 2.5.1 - Definition that Gases under pressure must have a pressure of more than 280 kPa at $20^{\circ} \mathrm{C}$ or be a refrigerated liquid.

The RID/ADR exempts from the provisions in 1.1.3.2.(c) gases of Groups A and O (Division 2.2), if the pressure of the gas in the receptacle or tank at a temperature of $15^{\circ} \mathrm{C}$ does not exceed 200 kPa (gauge) and if the gas is completely in the gaseous state during carriage.

## Discussion

- RID/ADR is more stringent in that it does not exempt the transportation of liquefied gases at low pressures. Effectively, a liquefied gas could be at 2 bar at $20^{\circ} \mathrm{C}$ and reach 8 bar at $60{ }^{\circ} \mathrm{C}$. Compressed gases would only rise marginally in pressure at higher temperatures. EIGA supports this philosophy.
- RID/ADR allows a marginally higher absolute pressure value 300 kPa ( 200 kPa gauge) at $15{ }^{\circ} \mathrm{C}$ instead of 280 kPa at $20^{\circ} \mathrm{C}$. EIGA feels that the difference is too small for arguing and is in favour of the 300 kPa because it is an easier figure to check with a gauge. On the other hand, one could adopt the $20^{\circ} \mathrm{C}$ to bring it in line with the definition of gases elsewhere.
- The issue was raised whether 280 kPa is not a gauge pressure. On investigation, the value came from CFR 49 provision 173.115 where it is explicitly stated "absolute pressure of $280 \mathrm{kPa}(40 \mathrm{psia})$ ". The UN on incorporating the value has omitted to convert to gauge pressure as required by 1.2.2.5 of the Model Regulations on the Transport of Dangerous Goods.


## Proposal for the UN Model Regulations

## Chapter 2.2

Amend 2.2.2.3 to read as follows:
"Gases of Division 2.2, other than refrigerated liquefied gases if they are transported at a pressure of less than 280200 kPa at $20^{\circ} \mathrm{C}$."

## Proposal for the GHS

## Chapter 1.2

In the definition of "Gas", insert the word "(absolute)" after "300 kPa".

## Chapter 2.5

In 2.5.1 - Definition: Amend the first sentence to read:
"Gases under pressure must have a pressure of more than 280200 kPa (gauge) at $20^{\circ} \mathrm{C}$ or be a refrigerated liquid. liquefied."

In 2.5.4.1, Decision logic, $2^{\text {nd }}$ box, in paragraph (a), replace " 3 bar" by "300 kPa (absolute)".

