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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  
Transport of Dangerous Goods

Twenty-fifth session, 5-14 July 2004  
Item 12 (b) of the provisional agenda

**HARMONIZATION WITH THE GLOBALLY HARMONIZED SYSTEM  
OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS)**

Health hazards

Acute Toxicity Requirements

Transmitted by the expert from the United States of America

**Background**

1. At the twenty third session of the Sub-Committee of Experts on the Transport of Dangerous Goods the expert from the United States of America agreed to develop a paper proposing alignment of the Model Regulations criteria for acute toxicity with the GHS criteria. This paper proposes to amend Chapter 2.6 of the Model regulations for acute oral, dermal and inhalation toxicity with the criteria in Chapter 3.1 of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (Purple Book). A summary of the necessary changes is as follows:

Oral toxicity (LD50), 6.1, PG III would be changed from >50-200 mg/kg for solids and >50-500 mg/kg for liquids to >50-300 mg/kg for both solids and liquids;

Dermal toxicity (LD50), 6.1, PG I would be changed from  $\leq 40$  mg/kg to  $\leq 50$  mg/kg; and

Inhalation toxicity by dusts and mists (LC50), 6.1, would be changed as follows:

PG I from  $\leq 0.5$  mg/l to  $\leq 0.2$  mg/l;

PG II from >0.5-2 mg/l to >0.2-2 mg/l; and

PG III from >2-10 mg/l to >2-4 mg/l.

2. If the Sub-Committee adopts the proposed changes to the acute toxicity values to align them with the GHS Category 1, 2, and 3 acute toxicity values, the effect would be as follows:

**Oral toxicity:** Solids with an LD<sub>50</sub> of >200-300 mg/kg that are not currently subject to the Model Regulations would be subject to the regulations as 6.1, PG III substances. Liquids with an LD<sub>50</sub> of >300-500 mg/kg that are currently subject to the regulations as 6.1 PG III substances would no longer be subject to the regulations

**Dermal toxicity:** Both solids and liquids with an LD<sub>50</sub> of >40-50 mg/kg that are currently regulated as 6.1, PG II substances would be subject to the regulations as 6.1, PG I substances

**Inhalation toxicity by dusts and mists:** Substances with an LC<sub>50</sub> of >0.2-0.5 mg/l that are currently regulated as 6.1, PG I substances would be subject to regulations as 6.1, PG II substances. Substances with an LC<sub>50</sub> of >4-10 mg/l that are currently regulated as 6.1, PG III substances would no longer be subject to the regulations.

These amendments may have an effect on some substances listed in the Dangerous Goods List (DGL). The expert from the United States of America has not undertaken a review of the substances that could potentially be affected. However, consistent with other changes to test methods or criteria in the past, we are content to leave the reclassification of individual substances to those that are involved directly in their transport. We envision that once the criteria are amended proposals will be submitted to amend the classification for some substances currently provided in the DGL consistent with the revised criteria. We do not envision that any special transitional provisions are necessary.

### Proposal

3. The table in 2.6.2.2.4.1 should be amended as follows:

#### **GROUPING CRITERIA FOR ADMINISTRATION THROUGH ORAL INGESTION, DERMAL CONTACT AND INHALATION OF DUSTS AND MISTS**

<b>Packing group</b>	<b>Oral toxicity LD<sub>50</sub> (mg/kg)</b>	<b>Dermal toxicity LD<sub>50</sub> (mg/kg)</b>	<b>Inhalation toxicity by dusts and mists LC<sub>50</sub> (mg/l)</b>
I	≤ 5.0	≤50	≤0.2
II	>5.0 and ≤ 50	>50 and ≤200	>0.2 and ≤2.0
III <sup>a</sup>	>50 and ≤ 300	>200 and ≤1000	>2.0 and ≤4.0

<sup>a</sup> *Tear gas substances shall be included in Packing group II even if their toxicity data correspond to Packing group III values.*

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