



Secretariat

Distr.  
GENERAL

ST/SG/AC.10/C.3/1997/74  
29 September 1997

Original: ENGLISH

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COMMITTEE OF EXPERTS ON THE  
TRANSPORT OF DANGEROUS GOODS

Sub-Committee of Experts on the  
Transport of Dangerous Goods  
(Fourteenth session,  
Geneva, 8-18 December 1997,  
agenda item 4 (b))

GLOBAL HARMONIZATION OF SYSTEMS OF CLASSIFICATION  
AND LABELLING OF CHEMICALS

Physical hazards

Test Particle Size for Division 4.1

Implementation of Agenda 21  
Classification of Reactive Substances

Transmitted by the Observer from New Zealand

**Introduction**

At the thirteenth session of the Sub-Committee New Zealand present an informal paper INF.3. This paper outlined a number of concerns relating to the classification of Flammable and Reactive Substances in the proposed Globally Harmonized System. During the Working Group meeting, New Zealand was invited to present formal papers to the fourteenth session of the Sub-Committee. Discussion on particle size was deferred until the fourteenth session.

New Zealand is currently developing Regulations for the Hazardous Substances and New Organisms (HSNO) Act. This Act implements the concepts and philosophy of the Globally Harmonized Chemical Classification System to New Zealand's Domestic Legislation. While developing these Regulations, we discovered some serious problems in applying the current UN transport classification criteria to the controls needed for worker, consumer and environmental safety. The difficulty arises from the UN transport classification's use of packaging to modify the risk.

GE.97-24199

## **New Zealand's Position re the Globally Harmonized Classification System**

New Zealand strongly supports the creation of a Globally Harmonized Chemical Classification System. We also strongly support the Terms of Reference of the CG/HCCS. Our position is stated in ST/SG/AC.10/C.3/1997/68. This position is the same as the position presented in INF.3 at the thirteenth session on the Sub-Committee.

### **Proposal**

It is proposed that the Working Group adopt a GHS classification criteria for the particle size used in the testing of Division 4.1. See Box 2 in the diagram. The UN Recommendations permits substances to be tested as prepared for transport. While this accurately reflects the risks involved in transport it does not adequately address the inherent hazard associated with Division 4.1. This it does not provide an adequate level of safety for workers. To reflect this inherent hazard it is proposed that criteria be adopted for the Globally harmonized System based on testing a uniformly finely divided solid. While we have no strong views on what this fine particle size should be, we note that the EU have already adopted a particle size criteria in EU Directive 67/548. As this is an existing international standard it would make sense to adopt this standard. Viz. A uniform particle size of 0.125 mm.

It is again stressed that this additional classification criteria **would not apply to Transport** but may apply to worker and consumer safety. This criteria should not be applied retrospectively to existing substances, unless it is known that they are used in a more finely divided form.

<p align="center"><b>UN Recommendations TDG</b></p> <p align="center"><b>And Globally Harmonised System</b></p> <p align="center">Controls for Transport</p>
<p align="center"><b>Globally Harmonised System</b></p> <p align="center">Allows for controls in non transport sectors</p> <p align="center">Occupational, public and environmental safety</p>
<p align="center"><b>No Controls Required</b></p>

### **Justification**

The current practice of testing the substances **as transported** provides adequate safety for transport. However, it does not adequately address safety in other parts of the substances lifecycle. Thus the current UN criteria does not adequately meet the terms of reference of the IOMC Co-ordinating Group (ST/SG/AC.10/C.3/1997/68 )

This proposal is intended to address the potential for a substance which is not classified as an oxidizing substance in the form that it is transported is subsequently processed to form a fine powder. In the finely powdered form the substance may exhibit moderately strong oxidizing potential which is not readily apparent as there was no hazard warning on the substance before processing. In the diagram above we are proposing to insert Box 2 labelled Globally Harmonised System.

The Globally Harmonised System is intended to address all portions of the products lifecycle. The current UN criteria does not provide sufficient protection for those parts of the lifecycle where the substance is taken out of its packaging. This is most evident where the substance might be processed and worker safety compromised.

Insertion of an additional level of possible control (Box 2) enhances worker, consumer and environmental safety. We again stress this additional level of possible control would not apply to transport.

Testing the substance in a finely divided form will correctly identify the inherent hazard associated with the substance. This meets the terms of reference for the Co-ordinating group (ST/SG/AC.10/C.3/1997/68).

### **Recommendation**

That the Working Group insert an additional hazard level as proposed to address safety in non-transport parts of the lifecycle of these substances.

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