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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 Globally
Harmonized System of Classification
and Labelling of Chemicals

Eighth session, 6-9 December 2004,
Item 2(a) of the provisional agenda

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

Physical Hazards

Proposal for amendments to Chapter 2.8 (Self-reactive substances) and 2.15 (Organic Peroxides)

Transmitted by the European Chemical Industry Council (CEFIC)

1. Introduction

The properties of self-reactive substances and organic peroxides are described in GHS 2.8.1 and 2.15.1.

Currently the GHS does not fully address an important property of self reactive substances and organic peroxides in that it refers to their being thermally unstable and uses the “Self Accelerating Decomposition Temperature” (SADT) as a means of identification and expression of this property. However CEFIC is of the opinion that this property needs to be further qualified in order to ensure safety.

2. Background

In the UN Manual of Tests and Criteria the thermal stability is identified by the SADT. A substance, which has an SADT below 55 °C or 50 °C, should be subject to temperature control.

A number of specific storage and handling guidelines already make use of the rules from the UN Manual of Tests and Criteria on temperature control for these substances.

Therefore, CEFIC proposes to amend the GHS to further define within the criteria those substances where temperature control is an essential parameter for self-reactive substances and organic peroxides.

3. *Proposals*

Insert new 2.8.2.3:

"2.8.2.3 Criteria for temperature control

Self-reactive substances need to be subjected to temperature control if their self-accelerating decomposition temperature (SADT) is less than or equal to 55 °C. Test methods for determining the SADT as well as the derivation of control and emergency temperatures are given in the UN Manual of Tests and Criteria, Part II, section 28. The test selected shall be conducted in a manner which is representative, both in size and material, of the package."

Insert new 2.15.2.3:

"2.15.2.3 Criteria for temperature control

The following organic peroxides need be subjected to temperature control:

- (a) Organic peroxides type B and C with an SADT = 50 °C;
- (b) Organic peroxides type D showing a medium effect when heated under confinement¹ with an SADT = 50 °C or showing a low or no effect when heated under confinement with an SADT = 45 °C; and
- (c) Organic peroxides types E and F with an SADT = 45 °C.

Test methods for determining the SADT as well as the derivation of control and emergency temperatures are given in the UN Manual of Tests and Criteria, Part II, section 28. The test selected shall be conducted in a manner which is representative, both in size and material, of the package. "

¹ *As determined by test series E as prescribed in the Manual of Tests and Criteria, Part II.*
