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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

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Item 3 (c) of the provisional agenda

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EXPLOSIVES, SELF-REACTIVE SUBSTANCES AND ORGANIC PEROXIDES

Amendments to the Manual of Tests and Criteria

Transmitted by the expert from Germany

**1. Background**

During the twenty-first session of the Sub-Committee, July 2002, the Koenen test 8(c) used for classification of ammonium nitrate emulsions was discussed. A steel tube "drawn from sheet steel of suitable quality" is asked for. The type of steel could affect the result. Surely all "suitable quality" steels will not have the same stress fracturing properties.

The Koenen test has been developed in Germany. For a long period this test is part of test series 1 and 2 also. The type of steel used for the tube can be specified. For internal use we have a standard working instruction including quality control of the steel tubes. By random testing of a certain number of tubes it is possible to determine if the tubes have the required quality. The mass and the dimensions are controlled and the bursting pressure is measured.

**2. Proposal**

It is proposed to delete in the second sentence of 11.5.1.2.1, 12.5.1.2.1, ~~and~~ 16.8.1.2.1 ~~and~~ [25.4.1.2.1](#) "of suitable quality" and to insert instead "~~DC 1403~~ ("materials number 1.0338) or equivalent" and to insert after the fourth sentence:

"For quality control of the steel tubes from each production lot 1% of the tubes should be taken and mass, wall thickness, length and bursting pressure should be controlled. The wall thickness 20 mm above the bottom shall be  $0,5 \pm 0,05$  mm, the length shall be  $75 \pm 0,5$  mm. The bursting pressure shall be  $300 \pm 30$  bar. The bursting pressure can be measured with means of a high-pressure pump using water as medium."

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