

## 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

25 May 2012

### Forty-first session

Geneva, 25 June – 4 July 2012

Item 2 (f) of the provisional agenda

**Explosives and related matters: miscellaneous**

## Classification of Novelty Fireworks (snappers and party poppers)

Transmitted by the Dangerous Goods Advisory Council (DGAC)

### Introduction

1. The default fireworks classification table in 2.1.3.5.5 includes novelty fireworks within a row described as “Low hazard fireworks and novelties”. This group is assigned a 1.4G classification. Novelty fireworks include such articles known as snappers, party poppers, toy smoke devices, snakes, glow worms and sparklers. As the name “default classification table” implies, the table provides a default classification in the absence of testing (see 2.1.3.5.1 and 2.1.3.5.2). As such it is possible through testing to assign fireworks listed in the table to a new classification or to exclude them from Class 1 based on testing and 2.1.3.6.4.

2. Unlike many types of fireworks, distribution of novelty fireworks may be significantly different than for other types of fireworks. For example, snappers and party poppers, could be used at festive occasions where other types of fireworks would be deemed unsafe or inappropriate. Quite often they are transported and sold in retail outlets separate from other fireworks (i.e., for distribution to and sale in party stores). In these circumstances classification as explosives offers certain challenges and for this reason proper classification of novelties takes on greater importance.

3. For articles, including novelty fireworks, limiting criteria for what may be excluded from Class 1 is set out in a newly adopted paragraph 2.1.3.6.4. This paragraph was introduced in the 17th revised edition. This paper addresses the application of these new criteria to the classification of snappers and party poppers. A second paper discusses application to other novelty items.

### Bonfire Testing

4. Bonfire tests on packages of snappers and party poppers were carried out as follows:

Snappers – containing 1.0 mg silver fulminate with 50 snaps per inside packaging; 40 inside packagings per inner packaging and 6 inner packagings per outer packaging (see an illustration of the packagings provided with the bonfire test video);

Party Poppers – containing 16 milligrams of explosive composition limited to potassium chlorate and red phosphorus with 144 devices per inner packaging and 3

inner packagings per outer packaging (see an illustration of the packagings provided with the bonfire test video);

5. In each case, the tests showed there was no event that would “hinder fire-fighting or other emergency response efforts in the immediate vicinity” and the “hazardous effects are confined to the packaging”. The testing results suggest that these novelties are eligible for exclusion from Class 1 on the basis of the criteria in 2.1.3.6.4. DGAC will provide videos of these tests for the Subcommittee or the Explosive Working Group to view. They may also be viewed at <http://www.DGAC.org>.

#### **Evaluation Under 2.1.3.6.4**

6. The criteria in 2.1.3.6.4 were considered in relation to the snappers and party poppers as follows:

**Snappers** – only the 2.1.3.6.4(c) criterion of “no audible report exceeding 135 dB(C) peak at a distance of one metre” would seem relevant. The average measured audible report was 90 dB at one metre (ranging from 81 to 100 dB in ten tests). On this basis it is assumed that such snappers are eligible for exclusion from Class 1 on the basis of a 6(c) test and producing an audible report of less than 135 dB.

**Party poppers** - only the 2.1.3.6.4(c) criterion of “no audible report exceeding 135 dB(C) peak at a distance of one metre” would seem relevant. The average measured audible report was 94 dB at one metre (ranging from 90 to 100 dB in ten tests). On this basis it is assumed that party poppers are eligible for exclusion from Class 1 on the basis of a 6(c) test and producing an audible report of less than 135 dB.

#### **Discussion**

7. Based on the above evaluation, it is our opinion that snappers and poppers of the type tested are eligible for exclusion from Class 1 and may be transported without declaring them as dangerous goods.

#### **Proposal**

8. To provide for uniform international transport of these novelty items, DGAC proposes to except the described snappers and party poppers from the regulations by amending the default classification table row addressing “Low hazard fireworks and novelties” by inserting the following additional text in the Specification column:

“Snappers containing not more than 1.0 mg silver fulminate with not more than 2000 snaps per inner packaging; 6 inner packagings per outer packaging and party poppers containing not more than 16 milligrams of explosive composition limited to potassium chlorate and red phosphorus with not more than 144 devices per inner packaging and 3 inner packagings per outer packaging are not subject to these Regulations.”