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COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS

<u>Sub-Committee of Experts on the Transport of Dangerous Goods</u>
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## MISCELLANEOUS DRAFT AMENDMENTS TO THE MODEL REGULATIONS ON THE TRANSPORT OF DANGEROUS GOODS

## **Packagings**

# **Liquid-tight closure test**

Transmitted by the expert from the People's Republic of China

### **Background**

In the Recommendations on the Transport of Dangerous Goods, a leakproofness test and an internal pressure (hydraulic) test are set for the packages of liquid dangerous goods. During the transportation of dangerous goods, many solid dangerous goods may also demand damp-proof packages, such as solid dangerous goods in Classes 4, 5, 6.1, 8 and 9. This is required in the IMDG Code, ADR and RID. From this view point, it is a common problem. However, in the above codes and the Recommendations on the Transport of Dangerous Goods, there are no descriptions of how to carry out the damp-proof test of packages for solid dangerous goods. For this reason, we propose adding the requirement of the liquid-tight closure test of packages for solid dangerous goods (only for those solid dangerous goods requiring damp-proof packages of course) in the Recommendations on the Transport of Dangerous Goods Model Regulations, so as to normalize the requirement of liquid-tight closure test of packages for solid dangerous goods.

The liquid-tight closure test is also called the "effectively closed" test. In other words, the seal of the package is liquid-tight. In recent years, China has been carrying out the liquid-tight closure test of part of the packages for export solid dangerous goods lining in Classes 4, 5 and 6.1, such as 1A2 for goods No UN 2946 (Class 4.1) and UN 1673 (Class 6.1), so as to impel the manufacturers of this kind of package to improve the technological requirements of package closures, and ensure the storage and transport safety of solid dangerous goods requiring damp-proof.

### **Proposal**

Add the following new section:

- 6.1.5.7 Liquid-tight closure test
- 6.1.5.7.1 Packing to be tested: Liquid-tight Closure Test should be carried out on all design types of package containers intended for solid requiring damp-proof.
- 6.1.5.7.2 Quantity of test samples: Three test samples per design type and manufacturer.
- 6.1.5.7.3 Special preparation of packaging for testing: drums, jerricans, composite packagings shall be filled to not less than 98% of their maximum capacity for water, the boxes bags shall be filled to not less than 95% of their maximum capacity solid succedaneum. Seal the packages, including internal packages, as for transportation.
- 6.1.5.7.4 Test method: For drums, jerricans and composite packagings, place them upside down or horizontal and keep the seals stay at the lowest position for 24 hours; for boxes and bags, immerse them in water and submerge the seals for 5 minutes.
- 6.1.5.7.5 Criterion for passing the test: the test samples should not leak out or leak in. For boxes and bags, the internal packages at least should not leak in.

#### **Consequential amendment:**

Renumber existing 6.1.5.7 and 6.1.5.8 accordingly.