

## 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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### PACKAGINGS

#### Comment on INF 38

#### Transmitted by the expert from France

*The expert from France thanks the expert from Australia for the research he has done on statistics for drums failures.*

Document Inf38 doesn't describe precisely the method used to get these results so it is not possible to evaluate their reliability.

Nevertheless we assume they are reliable and do not oppose them, as results.

The conclusion at the end of the document is only an interpretation of these results and cannot be seen otherwise than an opinion.

We do not share this opinion, and think that these figures should be compared to the general accidents rates, in order to see if they are significant.

In France we have every year about 5,4 millions of shipments. Applying the failure rate given in the Australian paper would lead to figure like:

- 216 failures of packages year where at least 67 are caused by vibration.

The average number of accidents happening to vehicle bearing an orange plate in France is about 200 a year. Two third of these are only traffic accidents. That means that the failure rate of packaging due to vibrations would be the same as the accident rate. That also shows that the current reporting system does not cover appropriately these failures. That is one of the reasons why excepted through a specific data collection no event concerning packaging failure are available.

France is now only one eight of Europe. On a territory comparable wit Australia we would therefore have about 1700 failures where 536 are caused by poor resistance to vibrations.

In our view a failure happening more than once a day is a significant problem.

We recognize that there are failures due to other causes than vibrations. This means that we should deal with

both problems.

Concerning the cost effectiveness, we consider that there is no proper analysis of that in the Australian document. But here are some elements:

The cost of a vibration test does not exceed 500€. This cost has to be splitted between the millions of packagings that are build according one design type during all its lifespan.  
In the end this cost will be negligible.

Improved handling and stowage conditions although we agree they are certainly necessary will induce additional costs on every single shipment. Therefore they are certainly more expensive

In conclusion the experts from France believes that the statistics presented by Australia are a very clear argument in favour of continuing the work on vibration testing.

France is conducting an additional series of tests that could not be achieved before this session of the committee because of material problems, but will lead to a formal proposal in December.

The tests are based on a new standard ISO 13355. The vibrations designed in this standard are based on measures taken on real road trip as follows:

Mild vibration level corresponds to:

Good quality road : 70-90% of the roads in Western Europe - 40-60% in Eastern Europe

Average vibration level corresponds to:

Average road: 10-30% of the roads in Western Europe ; 30-50% in Eastern Europe

Severe level of vibration corresponds to:

Bad road : 0-5% of the roads in Western Europe ; 10-30% in Eastern Europe

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