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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**  
(Nineteenth session, 2-6 July 2001,  
agenda item 5 (b))

**PACKAGINGS**

**Miscellaneous proposals**

**Packing instruction P601**

**Transmitted by the expert from the United Kingdom**

The expert from the United Kingdom has identified packaging problems with two substances to which packing instruction P601 has been allocated.

**UN 1744 Bromine – Combination packagings**

**Background**

1. P601(1) permits “glass inner packagings not exceeding 1 litre ..... outer packagings with a maximum gross mass of 15 kg.” In Europe in the 1999 RID/ADR and in Amendment 29 of the IMDG Code, the capacity limit for glass inner packagings for Bromine is 2.5 litres. Of the other substances assigned to this packing instruction, various limits apply in the modal provisions, the lowest being 1 litre. When asking industry to review the proposed limits, no objections were forthcoming.
2. However specially made glass bottles required for the transport of Bromine are only manufactured by a few companies. They are all of a standard capacity 1.3 litres, and are embossed with the words “Bromine” (see attached Annex). Several million bottles are in use and they are reusable. A normal package contains 5 bottles making the gross mass normally 25 kg.

GE.01-

## **Proposal**

3. Add a new special packing provision in packing instruction P601, as follows:

“PPxx For UN 1744 glass inner packagings with a capacity of not more than 1.3 litres may be used in a permitted outer packaging with a maximum gross mass of 25 kg.”

## **UN 1605 Ethylene dibromide**

### **Background**

4. Under the provisions of the 1999 RID/ADR and Amendment 29 to the IMDG Code, there are no special restrictions on the packagings to be used for this substance. It has been transported for many years in the United Kingdom in composite (6HA1) drums. In packing instruction P601 such drums would only be permitted as an inner of a combination packaging.
5. In document ST/SG/AC.10/C.3/1999/49, the Expert from the United States of America discussed packaging methods for substances described as ‘toxic by inhalation’. Substances would be allocated packing instruction P601 when the LC50 was 200ppm or less and the ratio of vapour pressure to toxicity was 2000 or more.
6. Ethylene dibromide does not meet this criterion. In the same document, for UN 1605 an LC50 of 650 ppm and a ratio of vapour pressure to toxicity of 17.38 are given, see Annex 1 page 4. On this basis, the substance would be allocated to the alternative packing instruction P602.
7. In United States’ regulations (49CFR) ethylene dibromide is assigned to “T.I.H Zone B” which would also permit 6HA1 packaging as a single packaging.

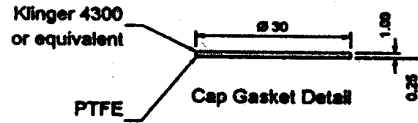
### **Proposal**

In the ‘Dangerous Goods List’, for entry UN 1605, in column (8) amend packing instruction “P601” to read “P602”.

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DO NOT SCALE

# ANNEX

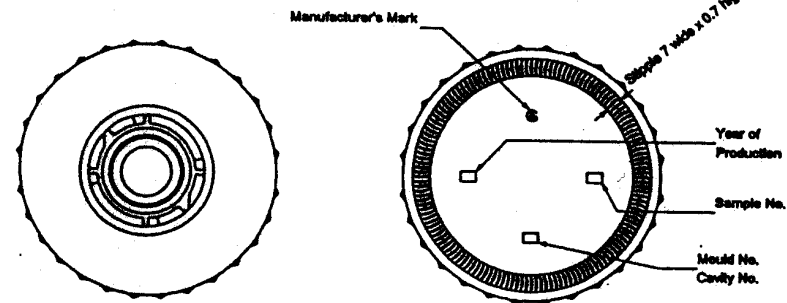
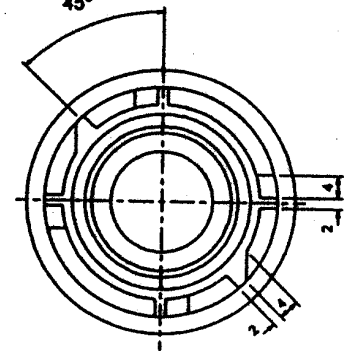
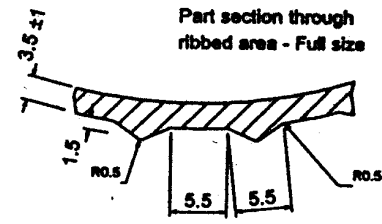
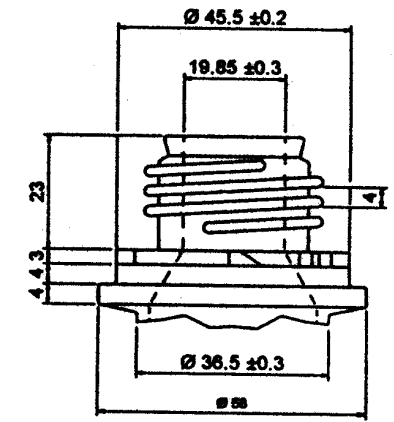
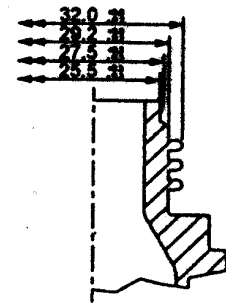
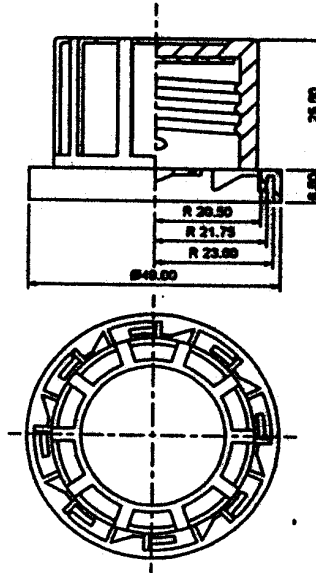
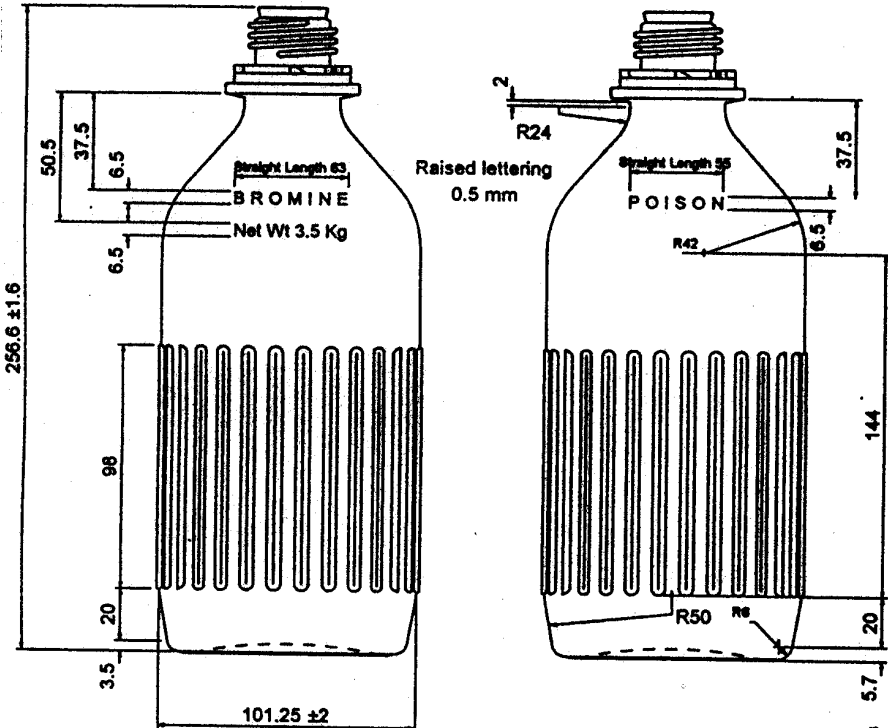


THIRD ANGLE PROJECTION

Brimful capacity 1300 millilitres

Filling Ratio = 89% = 1150 millilitres  
3.5 Kg. of Bromine

See Data Sheet for details of manufacturing quality control



Title: <b>Bromine Bottle</b>	Date:	Scale: <b>1:2 *</b>	Drawing No: <b>97-BR6-11</b>	Revision: <b>B</b>
	Drawn by:			