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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  
(Twenty-third session, 30 June -4 July 2003,  
agenda item 6 (b))

LISTING, CLASSIFICATION AND PACKING

New special provision for methanol, UN 1230

Transmitted by the expert from the United States of America

1. The chemical and hazard properties of methanol and ethanol are very similar. The attached Chart (see Figure 1) compares the flashpoints of methanol and ethanol ranging from dilute aqueous solutions to neat alcohols. In aqueous solutions of less than 50 %, methanol solutions have higher flash points than ethanol solutions. The trend reverses as the concentrations of alcohols increase so that the neat flashpoint of methanol is about 5°C lower than that of ethanol.
2. Both methanol and ethanol are Class 3 substances. However, these two substances are regulated very differently in the UN Model Regulations. Ethanol and ethanol solutions (UN 1170) can be assigned to either PG II or III depending on the flash point and concentration of the ethanol solutions. In addition, Special Provision 144 assigned to UN 1170 allows aqueous ethanol solution with not more than 24 % ethanol by volume to be non-regulated. On the other hand UN 1230 only lists "Methanol" and assigns it to PG II despite the fact that dilute methanol solutions should be assigned to PG III as indicated in the attached chart.

3. For UN 1230, a subsidiary risk of 6.1 is assigned. As noted in Special Provision 279 the assignment of a 6.1 subsidiary risk to UN 1230 is based on human experience on methanol itself and not on methanol solutions, particularly not on dilute methanol solutions. The Expert from the United States of America has long expressed the view that methanol may cause some health effects (blindness etc.) but not toxic effects if ingested. We expect the adverse health effects would decrease as the methanol concentration in an aqueous solution decreases.
4. It is the opinion of the expert from the United States of America that current regulatory requirements on dilute methanol solutions are overly restrictive. The Expert of the United States of America proposes to amend the entry for Methanol, UN 1230, so that the requirements for Methanol are more consistent with those for Ethanol.

### Proposal

5. Amend the entry of UN 1230 in the Dangerous Goods List as follows:

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1230	Methanol or Methanol Solution	3	6.1	II	279	1 L	P001 IBC02		T 7	TP 2
1230	Methanol or Methanol Solution	3		III	144 223	5 L	P001 IBC03 LP01	PP2	T 2	TP 1

### Flash Point Comparison

