

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

23 November 2010

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Item 4 of the provisional agenda

Listing, classification and packing

Proposal for a new UN number for Mercury in manufactured articles

Transmitted by the expert from the United Kingdom

1. The expert from the United Kingdom refers to ST/SG/AC.10/C.3/2010/63 produced by the representative of ICAO which expresses concern over the decision of the UN Sub-Committee at its 37th session to adopt a proposal from the expert of Germany in ST/SG/AC.10/C.3/2010/6 which would include a toxic subsidiary risk of 6.1 against UN 2809 MERCURY. As some of the Sub-Committee had questions about the data provided, the subsidiary risk was put in brackets until the forthcoming December session, see ST/SG/AC.10/C.3/74 paragraphs 29-30.
2. The expert from the United Kingdom shares the reservations expressed by ICAO in their paper. Not only will the segregation rules on aircraft have to be changed with added costs but in addition a number of operators refuse to transport any substance classified with a hazard of division 6.1. This will have an adverse effect on the transport of articles such as thermometers and medical equipment many of which contain mercury. Many of these instruments are used in emergencies in saving lives or protecting the environment and must be moved without undue delay.
3. The United Kingdom notes that in the ICAO Technical Instructions there are two proper shipping names given for UN 2809 namely MERCURY and MERCURY contained in manufactured articles. Indeed IATA for the Dangerous Goods panel meeting in Abu Dhabi in November 2010 put forward a paper DGP-WP/10-WP3 which amongst its proposals is one to ensure that the proper shipping name for the latter proper shipping name is all in upper case.
4. This has prompted the expert from the United Kingdom to suggest that one way of addressing the difficulties arising from the allocation of the toxicity subsidiary risk would be to create a completely separate UN number for the Model Regulations MERCURY IN MANUFACTURED ARTICLES which would not attract the 6.1 subsidiary risk.
5. The expert from the United Kingdom is aware that at this juncture that some members of the Sub-Committee will be asking themselves how a sub-risk of 6.1 can be necessary for Mercury when transported in its raw state but can somehow disappear when it is contained in manufactured articles. The United Kingdom would argue that the toxic risk from mercury in transport is primarily in the fumes it would give off if there was exposure to it during a transport incident. The quantities of Mercury in these instruments are very small and inhalation toxicity is unlikely to be experienced even in the event of transport incident where some of these instruments could break. In addition there has been little evidence of such articles being involved in a safety incident over many years. There is also

perhaps a precedent in the Model Regulations UN 3363 DANGEROUS GOODS IN MACHINERY OR APPARATUS where the dangerous goods are not listed or named so it is unclear to anyone what properties these dangerous goods might have.

6. In air transport the corrosive effects of mercury on aluminium means that these instruments need to be under a more stringent packaging regime. In European land transport articles with not more than 1kg of mercury are not subject to the regulations. The IMDG Code has the same provision. In 49CFR, for other than air transport, the packaging of these articles must meet UN packaging performance at the PGIII level.

7. The following proposal provides for two different approaches to addressing this issue. In both cases the United Kingdom believes that there should be a new UN number. However the details in columns 6-9 are open to further consideration. Option 1 tries to align the UN Model Regulations with all the current modal requirements whilst Option 2 makes this new entry only applicable to the air mode.

8. Add a new entry in the Dangerous Goods List as follows :

UN No.	Name and description	Class or division	Subsidiary risk	UN packing group	Special provisions	Limited and excepted quantities		Packagings and IBCs	
						(7a)	(7b)	Packing instruction	Special provisions
(1)	(2)	(3)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)
XXXX	MERCURY CONTAINED IN MANUFACTURED ARTICLES	8		?	SP3ZZ	-		P003	PPYY
					SP106				

Option 1

9. Add a new special provision SP3ZZ in column (6) and in Chapter 3.3. Add PPYY in column (9) and in P003.

"SP3ZZ For land and sea transport mercury in manufactured instruments and articles containing not more than 1Kg of mercury are not subject to these Regulations. [For air transport articles containing not more than 15g of mercury are not subject to these Regulations]".

(Note: this aligns to RID/ADR SP599 and IMDG SP941)

"PPYY For UNXXXX sealed inner liners or bags of strong leak-proof and puncture resistant material impervious to mercury which will prevent escape of the substance from the package irrespective of the position of the package shall be used.".

(Note: this text would broadly align with ICAO requirements)

Option 2

10. Add SP106 in column (6) only.