

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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Geneva, 30 November – 9 December 2009
Item 3 of the provisional agenda

LISTING, CLASSIFICATION, AND PACKAGING

Portable tank instructions for Division 4.3 liquids

Transmitted by the expert from the United States of America

1. ST/SG/AC.10/C.3/2009/44, submitted for consideration during the present session, considers a number of amendments to portable tank assignments for Division 4.3 liquids based on the Guiding Principles for the Development of the UN Model Regulations (see http://www.unece.org/trans/danger/publi/unrec/GuidingPrinciples/GuidingPrinciplesRev15_e.html). The proposed amendments in 2009/44, however, only addressed substances already assigned tank instructions within the Dangerous Goods List. A number of similarly classed substances currently do not receive tank assignments. The intent of this paper is to address those substances.

2. In reviewing the Division 4.3 liquids not currently authorized for transport in portable tanks, it was noted that a number of these liquids not only react with water to produce flammable gases, but may also pose an additional hazard in that they may ignite in contact with water or moist air. This condition is generally caused by the heat of the reaction with water igniting the generated flammable gases. The substances identified as posing this potential risk are:

1411	LITHIUM ALUMINIUM HYDRIDE, ETHEREAL
1928	METHYL MAGNESIUM BROMIDE IN ETHYL ETHER
1421	ALKALI METAL ALLOY, LIQUID, N.O.S.
1392	ALKALINE EARTH METAL AMALGAM, LIQUID
1389	ALKALI METAL AMALGAM, LIQUID
1420	POTASSIUM METAL ALLOYS, LIQUID

3. It should be noted that the Guiding Principles do not take into account the additional hazard posed by these materials. That is not a significant problem since these materials are currently not provided portable tank assignments. However, materials which pose similar ignition hazards, for example UN 2845, "Pyrophoric liquid, organic, n.o.s.", are assigned T22. Additionally, considering that portable tanks are commonly transported by sea and will be exposed to particularly moist and humid environments, it is proposed that the materials identified in this paper should be assigned higher integrity tanks than those

that would normally be assigned in accordance with the Guiding Principles for water-reactive materials not prone to auto-ignition. Therefore, T22 is proposed for substances which may ignite in contact with water or moist air. The proposed assignments for the remainder of the Division 4.3 liquids not currently assigned T-Codes are consistent with those recommended by the Guiding Principles.

4. If the Sub-Committee agrees with the proposed approach, a proposal will be submitted at the next session to address appropriate amendments to the Guiding Principles i.e. assignment of T22 to materials which may ignite in contact with water or moist air.

Proposal

5. Amend columns 10 and 11 to include the portable tank instructions and special provisions as shown in the table below:

Proposed Tank Assignments for Division 4.3 Liquids Not Currently Authorized in Portable Tanks

UN#	PSN	Class	SR	PG	T	TP
1411	LITHIUM ALUMINIUM HYDRIDE, ETHEREAL	4.3	3	I	<u>T22</u>	<u>TP2 TP7</u>
1928	METHYL MAGNESIUM BROMIDE IN ETHYL ETHER	4.3	3	I	<u>T22</u>	<u>TP2 TP7</u>
3130	WATER-REACTIVE LIQUID, TOXIC, N.O.S.	4.3	6.1	I	<u>T14</u>	<u>TP2 TP7 TP13</u>
1421	ALKALI METAL ALLOY, LIQUID, N.O.S.	4.3		I	<u>T22</u>	<u>TP2 TP7</u>
1392	ALKALINE EARTH METAL AMALGAM, LIQUID	4.3		I	<u>T22</u>	<u>TP2 TP7</u>
1389	ALKALI METAL AMALGAM, LIQUID	4.3		I	<u>T22</u>	<u>TP2 TP7</u>
1420	POTASSIUM METAL ALLOYS, LIQUID	4.3		I	<u>T22</u>	<u>TP2 TP7</u>
3130	WATER-REACTIVE LIQUID, TOXIC, N.O.S.	4.3	6.1	II	<u>T11</u>	<u>TP2 TP7</u>
3130	WATER-REACTIVE LIQUID, TOXIC, N.O.S.	4.3	6.1	III	<u>T7</u>	<u>TP2 TP7</u>