



**Economic and Social
Council**

Distr.
GENERAL

ECE/TRANS/WP.15/AC.1/2009/40
19 June 2009

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Dangerous Goods

Joint Meeting of the RID Committee of Experts and the
Working Party on the Transport of Dangerous Goods

Bern, 8-11 September 2009 and
Geneva, 14-18 September 2009
Item 6 of the provisional agenda

**HARMONIZATION WITH THE UN MODEL REGULATIONS ON THE TRANSPORT
OF DANGEROUS GOODS**

Limited Quantity limits for chlorosilanes

Transmitted by the European Chemical Industry Council (CEFIC)^{1,2}

SUMMARY

Executive summary:	Harmonize the limit values for Limited Quantities of Chlorosilanes with those in the UN Model Regulations
Action to be taken:	Assign LQ0 to all entries for chlorosilanes in classes 3 and 8
Related documents:	ST/SG/AC.10/C.3/2006/11

¹ In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.7 (c)).

² Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2009/40.

1. At the thirtieth session of the UN Sub-Committee of Experts on the Transport of Dangerous Goods (December 2006) proposals from ICCA/CEFIC to revise the provisions of Chlorosilanes were adopted. One of the proposals was to prohibit the carriage of chlorosilanes as limited quantities. This affected however only UN No.1818, for which the LQ value was changed from 1 to 0 litre. All other chlorosilanes had already been assigned “NONE” (this entry was later generally converted into “0”).
2. When transposing the 15th revised edition of the UN Recommendations on the Transport of Dangerous Goods, Model Regulations on the Transport of Dangerous Goods, into RID/ADR/ADN 2009, only the limit value for UN 1818 was taken over, whereas existing LQ values for the other chlorosilanes in RID/ADR/ADN No. 2007 were left untouched.
3. The two columns 7a in the Table in the Annex hereto demonstrate the difference in LQ limit values between the UN Model Regulations and RID/ADR/ADN: all chlorosilanes have been assigned “NONE” (i.e. “0”) in the UN Model Regulations whereas in RID/ADR/ADN only chlorosilanes of classes 4.3 and 6.1 (and also UN No.1818, belonging to class 8) have been assigned LQ0 and are thus aligned to the UN Model Regulations. This is however not the case for chlorosilanes of classes 3 and 8, which have been assigned respectively LQ4 (allowing 3 litre per inner packaging in a combination packaging and 1 litre in shrink-wrapped trays) and LQ22 (allowing 1 litre per inner packaging in a combination packaging and 0,5 litre in shrink-wrapped trays).
4. Manufacturers of chlorosilanes do not ship these products as Limited Quantities as they are concerned about the less demanding requirements for the packagings and about the fact that often less attention is paid to shipments with limited quantities than to shipments with regular packagings. In line with the objectives of ST/SG/AC.10/C.3/2006/11 the chlorosilanes manufacturers see no reason why these substances should be allowed for transport as limited quantity and make this proposal in order to ensure that this practice should be legally prohibited.

Proposal

5. CEFIC therefore proposes to assign LQ0 in column (7a) of Table A for the following UN numbers: 1162, 1196, 1250, 1298, 1305, 1724,1728, 1747, 1753, 1762, 1763, 1766, 1767, 1769, 1771, 1781, 1784, 1799, 1800, 1801, 1804, 1816, 2434, 2435, 2437, 2985, 2986, 2987.

The affected entries have been highlighted in the Table in ANNEX.

6. CEFIC also intends to submit, at the December 2009 session of the UN Sub-Committee of Experts, a similar proposal for a prohibition for Excepted Quantities i.e. assign E0 to all chlorosilanes entries (which is now only the case for chlorosilanes of class 4.3). The current assignment of excepted quantity limits are shown in colum 7b of the Table in the annex to this document for information purposes.

Justification

7. The adoption of this proposal will ensure that, once this amendment has been incorporated in the modal regulations, no chlorosilanes will be carried in limited or excepted

quantities. The industry is indeed convinced that no risks should be taken with these critical substances, particularly because of the reaction with water or humidity in the air in case of a leakage.

Safety implications

8. As explained above, safety will be enhanced.

AnnexList of chlorosilanes
(English only)

(entries in column 7a, shaded in grey, are proposed to be amended into LQ0)

UN No.	Name and description	Class or division	Subsidiary risk	UN packing group	Limited quantities		Excepted quantities
					UN	RID/ADR/ADN	
(1)	(2)	(3)	(4)	(5)	(7a)	(7a)	(7b)
1162	DIMETHYLDICHLOROSILANE	3	8	II	0	LQ4	E2
1183	ETHYLDICHLOROSILANE	4.3	3 8	I	0	LQ0	E0
1196	ETHYLTRICHLOROSILANE	3	8	II	0	LQ4	E2
1242	METHYLDICHLOROSILANE	4.3	3 8	I	0	LQ0	E0
1250	METHYLTRICHLOROSILANE	3	8	II	0	LQ4	E2
1295	TRICHLOROSILANE	4.3	3 8	I	0	LQ0	E0
1298	TRIMETHYLCHLOROSILANE	3	8	II	0	LQ4	E2
1305	VINYLTRICHLOROSILANE	3	8	II	0	LQ4	E2
1724	ALLYLTRICHLOROSILANE, STABILIZED	8	3	II	0	LQ22	E2
1728	AMYLTRICHLOROSILANE	8		II	0	LQ22	E2
1747	BUTYLTRICHLOROSILANE	8	3	II	0	LQ22	E2
1753	CHLOROPHENYLTRICHLOROSILANE	8		II	0	LQ22	E2
1762	CYCLOHEXYL-TRICHLOROSILANE	8		II	0	LQ22	E2
1763	CYCLOHEXYL-TRICHLOROSILANE	8		II	0	LQ22	E2
1766	DICHLOROPHENYL-TRICHLOROSILANE	8		II	0	LQ22	E2
1767	DIETHYLDICHLOROSILANE	8	3	II	0	LQ22	E2
1769	DIPHENYLDICHLOROSILANE	8		II	0	LQ22	E2
1771	DODECYLTRICHLOROSILANE	8		II	0	LQ22	E2

UN No.	Name and description	Class or division	Subsidiary risk	UN packing group	Limited quantities		Excepted quantities
					UN	RID/ADR/ADN	
(1)	(2)	(3)	(4)	(5)	(7a)	(7a)	(7b)
1781	HEXADECYL-TRICHLOROSILANE	8		II	0	LQ22	E2
1784	HEXYLTRICHLOROSILANE	8		II	0	LQ22	E2
1799	NONYLTRICHLOROSILANE	8		II	0	LQ22	E2
1800	OCTADECYLTRICHLOROSILANE	8		II	0	LQ22	E2
1801	OCTYLTRICHLOROSILANE	8		II	0	LQ22	E2
1804	PHENYLTRICHLOROSILANE	8		II	0	LQ22	E2
1816	PROPYLTRICHLOROSILANE	8	3	II	0	LQ22	E2
1818	SILICON TETRACHLORIDE	8		II	0	LQ0	E2
2434	DIBENZYL-DICHLOROSILANE	8		II	0	LQ22	E2
2435	ETHYLPHENYL-DICHLOROSILANE	8		II	0	LQ22	E2
2437	METHYLPHENYL-DICHLOROSILANE	8		II	0	LQ22	E2
2985	CHLOROSILANES, FLAMMABLE, CORROSIVE, N.O.S.	3	8	II	0	LQ4	E2
2986	CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S.	8	3	II	0	LQ22	E2
2987	CHLOROSILANES, CORROSIVE, N.O.S.	8		II	0	LQ22	E2
2988	CHLOROSILANES, WATER-REACTIVE, FLAMMABLE, CORROSIVE, N.O.S.	4.3	3 8	I	0	LQ0	E0
3361	CHLOROSILANES, TOXIC, CORROSIVE, N.O.S.	6.1	8	II	0	LQ0	E4
3362	CHLOROSILANES, TOXIC, CORROSIVE, FLAMMABLE, N.O.S.	6.1	3 8	II	0	LQ0	E4