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

Geneva, 13–17 September 2010 Item 3 of the provisional agenda **Standards**

References to standards in RID/ADR/ADN and UN Model Regulations

Transmitted by the European Committee for Standardisation (CEN)

The present document contains a table listing all references to standards in RID/ADR/ADN and the UN Model Regulations.

INF.19

6 September 2010

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general
				Chapter 1			
		1.2.1A		Auto-ignition temperature (EN 1127-1:1997, No. 331) means the lowest temperature determined under prescribed test conditions of a hot surface on which a flammable substance in the form of a gas/air or vapour/air mixture ignites.	EN 1127-1:1997 No. 331	not provided	GP
		1.2.1B		For such apparatuses, see for example European standard	EN 136:1998	not provided	GP
		1.2.1B		For the filters used, see for example European standard	EN 371:1992	not provided	GP
		1.2.1B		For the filters used, see for example European standard	EN 372:1992	not provided	GP
		1.2.1B		For such apparatuses, see for example European standard	EN 137:1993	not provided	GP
		1.2.1B		For such apparatuses, see for example European standard	EN 138:1994	not provided	GP
1.2.1 C	1.2.1 C	1.2.1 C		A swap body is a container which, in accordance with European Standard EN 283:1991 has the following characteristics	EN 283:1991	not provided	GP
		1.2.1 D		Deflagration means an explosion which propagates at subsonic speed (see EN 1127- 1:1997	EN 1127-1:1997	not provided	GP

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s, Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	para	para	16, para		number		dedicated (D) or general purpose (GP)
		1.2.1 D		Detonation means an explosion which propagates at supersonic speed and is characterized by a shock-wave (see EN 1127-1:1997)	EN 1127-1:1997	not provided	GP
		1.2.1 E		For such devices, see for example European standard	EN 400:1993	not provided	GP
		1.2.1 E			EN 401:1993	not provided	GP
		1.2.1 E			EN 402:1993	not provided	GP
		1.2.1 E			EN 403:1993	not provided	GP
		1.2.1 E			EN 1146:1997	not provided	GP
		1.2.1 E		which may be used in the corresponding potentially explosive atmosphere (see IEC publication 79 and EN 50014: 1994)	EN 50014:1994	not provided	GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general
		1.2.1 E		in which the combustion process spreads after ignition to the entire unconsumed mixture (see EN 1127-1:1997)	EN 1127-1:1997	not provided	GP
		1.2.1 F		This device shall be tested according to the European standard	EN 12874:1999	not provided	GP
1.2.1 F	1.2.1 F	1.2.1 F		The chemical heat of combustion shall be determined by one of the following methods	ASTM D 240	not provided	GP
1.2.1 F	1.2.1 F	1.2.1 F		The chemical heat of combustion shall be determined by one of the	ISO/FDIS 13943:1999 (E/F) 86.1 to 86.3	not provided	GP
1.2.1 F	1.2.1 F	1.2.1 F		following methods	NFPA 30B	not provided	GP
		1.2.1 E		This device shall be tested according to the European standard	EN 12874:1999	not provided	GP
1.2.1 L	1.2.1 L	1.2.1 L	1.2.1 L	or (b) is liquid according to the ASTM D 4359-90 test method	ASTM D 4359-90	not provided	GP
		1.2.1 P		For protective gloves, see for example European standard	EN 374-1:1994	not provided	GP
		1.2.1 P			EN 374-2:1994	not provided	GP
		1.2.1 P			EN 374-3:1994	not provided	GP
		1.2.1 P		For protective goggles or masks, see for example European standard	EN 166:2001	not provided	GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general
		1.2.1 P		For protective shoes or boots, see for example European standard	EN 346:1997	not provided	gurpose (GP) GP
		1.2.1 P		For protective suits, see for example European standard	EN 340:1993	not provided	GP
			1.2.1 R	NOTE: ISO 16103:2005 provides additional guidance on procedures to be followed in approving the use of recycled plastics materials.	ISO 16103:2005	Packaging - Transport packaginges for dangerous goods - Recycled plastics material	D
1.2.1 S	1.2.1 S	1.2.1 S		(b) a substance which is not liquid according to the ASTM D 4359-90 test method or which is pasty according to the criteria applicable to the test for determining fluidity (penetrometer test) described in 2.3.4;	ASTM D 4359-90	not provided	GP
		1.2.1 S		Steady burning means combustion stabilized for an indeterminate period (see EN 12 874:1999)	EN 12874:1999	not provided	GP
		1.2.1 T		and of the electrical apparatus intended to be used in the corresponding potentially explosive atmosphere according to their maximum surface temperature (see IEC publication 79 and EN 50 014:1994)	EN 50014:1994	not provided	GP
		1.2.1 T		Types of protection (see IEC Publication 79 and EN 50 014:1994)	EN 50014:1994	not provided	GP
		1.2.1 T		Tube means a seamless transportable pressure receptacle of a water capacity exceeding 150 litres and of not more than 3,000 litres; Types of protection (see IEC Publication 79 and EN 50 014:1994)	EN 50018	not provided	GP
					EN 50019	not provided	GP
					EN 50020	not provided	GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16. para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D)
	·		- , [or general purpose (GP)
					EN 50028	not provided	GP
					EN 50016	not provided	GP
					EN 50017	not provided	GP
		1.6.7.2.2.2 Table		High velocity vent valve according to standard	EN 12874:1999	not provided	GP
		1.6.7.2.22 Table		Compliance of hoses and hose assemblies with standards	EN 12115:1999	not provided	GP
					EN 13765:2003	not provided	GP
					EN ISO 10380:2003	not provided	GP
		1.6.7.4.2 Table C from Part 3 - 3. Until 31.12.2018 UN		GAS OIL complying with standard EN 590: 2004	EN 590:2004	not provided	GP
		NU. 1202		HEATING OIL (LIGHT) with flash-point as specified in EN 590:2004	EN 590:2004	not provided	GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general
1.6.3.32				Fixed tanks (tank vehicles) and demountable tanks constructed before 1 July 2007 in accordance with the requirements in force up to 31 December 2006, equipped with manhole cover assemblies in accordance with the provisions of standard	EN 13317:2002	not provided	D
1.6.3.32				or the material of which does not meet the requirements of EN 13094:2004, paragraph 5.2, may still be used.	EN 13094:2004	not provided	D
1.8.6.4	1.8.6.4			The inspection body shall additionally be accredited according to the standard EN ISO/IEC 17020:2004, as specified in 6.2.3.6 and TA4 and TT9 of 6.8.4.	EN ISO/IEC 17020:2004	not provided	GP
1.8.6.4	1.8.6.4			Before temporary designation, the competent authority shall ensure that the inspection body meets the requirements of the standard EN ISO/IEC 17020:2004.	EN ISO/IEC 17020:2004	not provided	GP
1.8.7.8	1.8.7.8			1.8.7.8 Products manufactured, approved, inspected and tested according to standards / 1.8.7.8 Products manufactured, approved, inspected and tested according to standards: The requirements of 1.8.7.7 are considered to have been complied with if the following standards, as relevant, are applied:	EN 12972:2007	Tanks for transport of dangerous goods - Testing, inspection and marking of metallic tanks	D
		1.15.3.8		The classification society shall have prepared and implemented and shall maintain an effective system of internal quality based on the relevant aspects of internationally recognized quality standards and conforming to the standards EN	EN 45004:1995 ISO 9001	not provided	GP GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number EN 29001:1997	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP) GP
		446.44		The sheet for the second to			0.5
		1.16.4.1		The classification society shall have prepared and implemented and shall maintain an effective system of internal quality based on the relevant aspects of internationally recognized quality standards and conforming to the standards EN	EN 45004:1995	not provided	GP
	<u>.</u>	I	<u>.</u>	Chapter 2			
2.1.2.6	2.1.2.6	2.1.2.6		A viscous substance for which a specific melting point cannot be determined shall be subjected to the ASTM D 4359-90 test or to the test for determining fluidity (penetrometer test) prescribed in 2.3.4.	ASTM D 4359-90		GP
2.2.2.1.5	2.2.2.1.5	2.2.2.1.5	2.2.2.1 (a)(ii)	Flammability shall be determined by tests or by calculation, in accordance with methods adopted by ISO (see ISO 10156:1996).	ISO 10156:1996	Not included	GP
			2.2.2.1 (b), NOTE	with an oxidizing power determined by a method specified in ISO 10156:1996 or ISO 10156- 2:2005.	ISO 10156:1996	Not included	GP
					ISO 10156-2:2005	Not included	GP
2.2.2.1.5	2.2.2.1.5	2.2.2.1.5		Oxidizing ability is determined either by tests or by calculation methods adopted by ISO (see ISO 10156:1996 and ISO 10156-2:2005).	ISO 10156-2:2005	Not included	GP
2.2.2.1.6 c) Note	2.2.2.1.6 c) Note	2.2.2.1.6 c) Note		The chemical heat of combustion shall be determined by one of the following methods: ASTM D 240, ISO/FDIS 13943:1999 (E/F) 86.1 to 86.3 or NFPA 30B;	ASTM D 240	Not included	GP
					ISO/FDIS 13943:1999 (E/F) 86.1 to 86.3	Not included	GP
					NEPA 30B	Not included	GP

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s, Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	para	para	16 , para		number		dedicated (D)
							or general
							purpose (GP)
			2.2.3 (a)	Flammability shall be determined by tests or by calculation, in accordance with methods adopted by ISO (see ISO 10156:1996).	ISO 10156:1996	Not indicated	GP
			2.2.3 (d)	Oxidizing ability is	ISO 10156:1996	Not indicated	GP
				determined either by tests	ISO 10156-2:2005	Not indicated	GP
2.2.3.1.4 Table	2.2.3.1.4 Table	2.2.3.1.4 Table		Flow time t in accordance	ISO 2431:1993	Not indicated	GP
				with ISO 2431:1993			
			2.3.1.3 (b)	Liquids are considered to be unable to sustain combustionifTheir fire point according to ISO 2592:2000 is greater than 100°C;	ISO 2592:2000	Not indicated	GP
			2.3.3	The following methods for	ISO 1516	Not indicated	GP
				of flammable liquids may	ISO 1523	Not indicated	GP
				be used: International	ISO 2719	Not indicated	GP
				standards:	ISO 13736	Not indicated	GP
					ISO 2679	Not indicated	GP
					ISO 3680	Not indicated	GP
				I he following methods for determiming the flash point of flammable liquids may be used: National standards	ASTM D3828-07a	Standard Test Methods for Flash Point by Small Scale Closed Cup Tester	GP
					ASTM D56-05	Standard Test Methods for Flash Point by Tag Closed Cup Tester	GP
					ASTM D3278- 96(2004)e1	Standard Test Methods for Flash Point of Liquids by Small Scale Closed Cup Apparatus	GP
					ASTM D93-08	Standard Test Methods for Flash Point by Pensky- Martens Closed Cup Tester	GP
					NF M 07 - 019	Not indicated	GP
					NF M 07 - 011/ NF T 30 - 050/ NF T 66 - 009	Not indicated	GP
					NF M 07 - 036	Not indicated	GP
					DIN 51755 (flash points below 65°C)	Not indicated	GP
					GOST 12.1.044-84	Not indicated	GP
			2.3.4	The following	ISO 3924	Not indicated	GP
				methods for	ISO 4626	Not indicated	GP
				determining the initial	ISO 3405	Not indicated	GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
				National standards	ASTM D86-07a	Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure	GP
					ASTM D1078-05	Standard Test Method for Distillation of Range of Volatile Organic Liquids	GP
				Further acceptable methods	Method A.2 described in Part A of the Annex to Commission Regulation (EC) No440/2008	Detailed literature added in footnote	GP
2.2.3.1.5	2.2.3.1.5	2.2.3.1.5		, the height of the separated layer of solvent is less than 3% of the total height, and if the substances at 23 °C have, in the flow cup conforming to ISO 2431:1993 having a jet 6 mm in diameter, a flow time of:	ISO 2431:1993	Not indicated	GP
2.2.52.1.4 Note	2.2.52.1.4 Note	2.2.52.1.4 Note	2.5.3.4.2	Because organic peroxides may react vigorously when heated, it is recommended to determine their flash-point using small sample sizes such as described in ISO 3679:1983.	ISO 3679:1983	Not indicated	GP
2.2.7.2.3.3.2 c)	2.2.7.2.3.3.2 c)	2.2.7.2.3.3.2 c)	2.7.2.3.3.2 (c)	or alternatively for sealed sources, the leakage rate for the volumetric leakage assessment test specified in ISO 9978:1992	ISO 9978:1992	Radiation protection - Sealed radioactive sources - Leakage test methods	GP
2.2.7.2.3.3.6 a) i)	2.2.7.2.3.3.6 a) i)	2.2.7.2.3.3.6 a) i)	2.7.2.3.3.6 (a) (i)	(a) The tests prescribed in 2.2.7.2.3.3.5 (a) and (b) provided the mass of the special form radioactive material: (i) is less than 200 g and they are alternatively subjected to the Class 4 impact test prescribed in ISO 2919:1999	ISO 2919:1999	Radiation protection - Sealed radioactive sources - General requirements and classification	GP
2.2.7.2.3.3.6 a) ii)	2.2.7.2.3.3.6 a) ii)	2.2.7.2.3.3.6 a) ii)	2.7.2.3.3.6 (a) (ii)	(a) The tests prescribed in 2.2.7.2.3.3.5 (a) and (b) provided the mass of the special form radioactive material: (ii) is less than 500 g and they are alternatively subjected to the Class 5 impact test prescribed in ISO 2919:1999	ISO 2919:1999	Radiation protection - Sealed radioactive sources - General requirements and classification	GP

ADR 2009	RID 2009	ADN 2000	UN Model	Reference text	Referenced	Referenced	Character of
subsection/	subsection/	subsection/	Reg 's Rev	Reference text	Standard	Standard title	standard
para	nara	nara	16 para		numbor	otanuaru titie	dodicated (D)
para	para	para	iu, para		number		or general
2272336b)	2272336b)	2272336b)	272336 <i>(</i> b)	The test prescribed in	150 2010-1000	Radiation	
2.2.1.2.0.0.0 0)	2.2.7.2.0.0.0 0)	2.2.7.2.0.0.0 0)	2.7.2.0.0.0 (b)	2.2.7.2.3.3.5 (d) provided	100 2010.1000	protection - Sealed	0.
				they are alternatively		radioactive sources	
				subjected to the Class 6		- General	
				temperature test specified		requirements and	
				11130 2919.1999		classification	
2272338b)	2272338h)	2272338h)	272338(b)	The alternative volumetric	ISO 9978-1992	Radiation	GP
2.2	2.2.7.2.01010 0)		2.7.2.0.0.0 (0)	leakage assessment shall	100 0010.1002	protection; sealed	0.
				comprise any of the tests		radioactive	
				prescribed in ISO		sources; leakage	
				9970.1992		test methods	
2,2,8,1.6	2.2.8.1.6	2.2.8.1.6	2.8.4.2.5 (c) (ii)	For the purposes of testing	ISO 3574	Not indicated	GP
2.2.0.1.0	2.2.0.110	2.2.0.110	2.0.1.2.0 (0) ()	steel, type, ISO 3574 or		not marcutou	0.
				shall be used.			
					UNS G10200	Not indicated	GP
00044-\	00044-\	00044-)		The fleep scient at - " t -	SAE 1020	Not indicated	GP
∠.3.3.1.1 e)	∠.ა.з.1.1 e)	∠.ა.з.1.1 e)		determined by means of	130 30/9:1983	NOT INDICATED	GP
				one of the following types			
				of apparatus: Apparatus			
				in accordance with ISO			
				3679:1983 of ISO 3680:1983	ISO 3680:1983	Not indicated	GP
				0000.1000			
2.3.3.1.2 a)	2.3.3.1.2 a)	2.3.3.1.2 a)		To determine the flash-	ISO 3679:1983	Not indicated	GP
,	,	,		point of paints, gums and			
				similar viscous products			
				containing solvents, only			
23312b)	23312b)	23312b)		methods suitable for	150 3680-1083	Not indicated	GP
2.3.3.1.2 0)	2.3.3.1.2 0)	2.3.3.1.2 0)		determining the flash-point	130 3060. 1963	NULINUICALEU	GP
				for viscous liquids shall be			
				the following standards			
				and following standards			
2.3.3.1.2 c)	2.3.3.1.2 c)	2.3.3.1.2 c)			ISO 1523:1983	Not indicated	GP
2.3.3.1.2 d)	2.3.3.1.2 d)	2.3.3.1.2 d)		1	DIN 53213:1978	Not indicated	GP
					Part 1		
2.3.3 1 4 a)	2.3.3 1 4 a)	2.3.3.1 4 a)		For the procedure	ISO 1516-1981	Not indicated	GP
		(2)		according to an equilibrium			5.
				method, see:			
	0.0.0.4.415	0.0.0.4.4.1					
2.3.3.1.4 b)	2.3.3.1.4 b)	2.3.3.1.4 b)			150 3680:1983	INOT INDICATED	GP
2.3.3.1.4 c)	2.3.3.1.4 c)	2.3.3.1.4 c)			ISO 1523:1983	Not indicated	GP

ADR 2009	RID 2009	ADN 2009	UN Model	Reference text	Referenced	Referenced	Character of
subsection/	subsection/	subsection/	Reg.'s, Rev.		Standard	Standard title	standard
para	para	para	16, para		number		dedicated (D)
							purpose (GP)
2.3.3.1.4 d)	2.3.3.1.4 d)	2.3.3.1.4 d)			ISO 3679:1983	Not indicated	GP
2.3.3.1.5 a) i)	2.3.3.1.5 a) i)	2.3.3.1.5 a) i)		The procedure according to a non-equilibrium method shall be: (a) for the Abel apparatus, see:	BS 2000 Part 170:1995	Not indicated	GP
2.3.3.1.5 a) ii)	2.3.3.1.5 a) ii)	2.3.3.1.5 a) ii)			NF MO7-011:1988	Not indicated	GP
2.3.3.1.5 a) iii)	2.3.3.1.5 a) iii)	2.3.3.1.5 a) iii)			NF T66-009:1969	Not indicated	GP
2.3.3.1.5 b) i)	2.3.3.1.5 b) i)	2.3.3.1.5 b) i)		The procedure according to a non-equilibrium method shall be: (b) for the Abel-Pensky apparatus, see:	DIN 51755 Part 1:1974 (for temperatures from 5 °C to 65 °C)	Not indicated	GP
2.3.3.1.5 b) ii)	2.3.3.1.5 b) ii)	2.3.3.1.5 b) ii)			DIN 51755 Part 2:1978 (for temperatures below 5 °C)	Not indicated	GP
2.3.3.1.5 b) iii)	2.3.3.1.5 b) iii)	2.3.3.1.5 b) iii)			NF MO7-036:1984	Not indicated	GP
2.3.3.1.5 c)	2.3.3.1.5 c)	2.3.3.1.5 c)		The procedure according to a non-equilibrium method shall be: (c) for the Tag apparatus, see:	ASTM 56:1993	Not indicated	GP
2.3.3.1.5 d) i)	2.3.3.1.5 d) i)	2.3.3.1.5 d) i)		The procedure according to a non-equilibrium method shall be: (d) for the Pensky-Martens apparatus, see:	ISO 2719:1988	Not indicated	GP
2.3.3.1.5 d) ii)	2.3.3.1.5 d) ii)	2.3.3.1.5 d) ii)			EN 22719:1994	Not indicated	GP
2.3.3.1.5 d) ii)	2.3.3.1.5 d) ii)	2.3.3.1.5 d) ii)			BS 2000 Part 404:1994	Not indicated	GP
2.3.3.1.5 d) ii)	2.3.3.1.5 d) ii)	2.3.3.1.5 d) ii)			EN 22719:1994	Not indicated	GP

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s, Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	para	para	16, para		number		dedicated (D) or general
2.3.3.1.5 d) iii)	2.3.3.1.5 d) iii)	2.3.3.1.5 d) iii)			ASTM D 93:1994	Not indicated	GP
2.3.3.1.5 d) iv)	2.3.3.1.5 d) iv)	2.3.3.1.5 d) iv)			IP 34:1988	Not indicated	GP
2.3.4.1	2.3.4.1	2.3.4.1		To determine the fluidity the following test method shall be used:Test apparatus: Commercial penetrometer conforming to ISO 2137:1985	ISO 2137:1985	Not indicated	GP
				Chapter 3			<u>.</u>
3.2.1 Table A UN No. 1202	3.2.1 Table A UN No. 1202	3.2.1 Table A UN No. 1202		DIESEL FUEL complying with standard EN 590:2004 or GAS OIL or HEATING OIL, LIGHT with	EN 590:2004	DIESEL FUEL	GP
				a flash-point as specified in EN 590:2004	EN 590:2004	GAS OIL, HEATING OIL, LIGHT	GP
		3.2.3 Table C: Explanations concerning Table C: Column (20) Nr. 38		When the initial melting point of these mixtures in accordance with standard ASTM D86-01 is above 60° C, the transport requirements for packing group II are applicable	ASTM D 86:2001	Not indicated	GP
		3.2.3 Footnotes related to the list of sunstances, Nr. 1)		The ignition temperature has not been determined in accordance with	IEC 79-4	Not indicated	GP
		3.2.3 Footnotes related to the list of sunstances, Nr. 2)		The ignition temperature has not been determined in accordance with	IEC 79-4	Not indicated	GP
		3.2.3 Footnotes related to the list of sunstances, Nr. 3)		The ignition temperature has not been determined in accordance with	IÉC 79-1A	Not indicated	GP

ADR 2009	RID 2009	ADN 2009	UN Model	Reference text	Referenced	Referenced	Character of
para	para	para	Reg.'s, Rev. 16. para		number	Standard title	dedicated (D)
·			- , [or general
		3 2 3 Ecotrotes		No maximum experimental	IEC 79 14	Not indicated	purpose (GP)
		related to the list		safe gap (MESG) has	IEC 79-1A	Not indicated	GP
		of sunstances, Nr. 4)		been measured in accordance with			
		3.2.3 Footnotes		No maximum experimental	IEC 79-1A	Not indicated	GP
		related to the list of sunstances,		safe gap (MESG) has been measured in			
		Nr. 5)		accordance with			
		3.2.3 Footnotes related to the list		No maximum experimental safe gap (MESG) has	IEC 79-1A	Not indicated	GP
		of sunstances,		been measured in			
		INI. 7)					

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
		3.2.3 Footnotes related to the list of sunstances, Nr. 8)		No maximum experimental safe gap (MESG) has been measured in accordance with	IEC 79-1A	Not indicated	GP
		3.2.3 Footnotes related to the list of sunstances, Nr. 8)		No maximum experimental safe gap (MESG) has been measured in accordance with	EN 50014	Not indicated	GP
		3.2.3 Column (16): Determination of explosion group explanation related to the list of sunstances		The maximum experimental safe gaps shall be determined in accordance with the standard contained in IEC Publication No. 79-1A	IEC 79-1A	Not indicated	GP
		3.2.4.2 No. 2.12		Physico-chemical properties: Flow time (ISO 2431-1996)s	ISO 2431-1996	Not indicated	GP
		3.2.4.2 No. 3.1		Auto-ignition temperature in accordance with	IEC 60079-4	Not indicated	GP
		3.2.4.2 No. 3.1		Auto-ignition temperature in accordance with	DIN 51794	Not indicated	GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number EN 50014:1994	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP) GP
				in accordance with IEC 60079-4 (corresponds to DIN 51 794) ° C; where applicable, indicate the temperature class in accordance with EN 50 014: 1994.			
		3.2.4.2 No. 3.2		Closed-cup test methods - non-equilibrium procedure ABEL method: EN ISO 13736:1997	EN ISO 13736:1997	Not indicated	GP
		3.2.4.2 No. 3.2		Closed-cup test methods - non-equilibrium procedure ABEL-PENSKY method:	DIN 51755-1:1974	Not indicated	GP
		3.2.4.2 No. 3.2		Closed-cup test methods - non-equilibrium procedure ABEL-PENSKY method:	DIN 51755-2:1978	Not indicated	GP
		3.2.4.2 No. 3.2		Closed-cup test methods - non-equilibrium procedure AFNOR method:	M07-019	Not indicated	GP
		3.2.4.2 No. 3.2		Closed-cup test methods - non-equilibrium procedure PENSKY-MARTENS method:	EN ISO 2719:2004	Not indicated	GP
		3.2.4.2 No. 3.2		Closed-cup test methods - non-equilibrium procedure LUCHAIRE apparatus:	AFNOR T 60- 103:1968	Not indicated	GP
		3.2.4.2 No. 3.2		Closed-cup test methods - non-equilibrium procedure TAG method:	ASTM D 56-02	Not indicated	GP
		3.2.4.2 No. 3.2		Closed-cup test methods - equilibrium procedure - Rapid equilibrium procedure:	EN ISO 3679:2004	Not indicated	GP
		3.2.4.2 No. 3.2		Closed-cup test methods - equilibrium procedure - Rapid equilibrium procedure:	ASTM D 3278- 96:2004	Not indicated	GP
		3.2.4.2 No. 3.2		Closed-cup test methods - equilibrium procedure - Closed-cup equilibrium procedure:	EN ISO 1523:2002	Not indicated	GP
		3.2.4.2 No. 3.2		Closed-cup test methods - equilibrium procedure - Closed-cup equilibrium procedure:	ASTM D 3941- 90:2001	Not indicated	GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
		3.2.4.2 No. 3.2		In addition to the above- mentioned methods, the following open-cup test method may be applied: CLEVELAND method:	EN ISO 2592:2002	Not indicated	GP
		3.2.4.2 No. 3.2		In addition to the above- mentioned methods, the following open-cup test method may be applied: CLEVELAND method:	ASTM D 92-02b	Not indicated	GP
		3.2.4.2 No. 3.2		Explosion limits: Determination of upper and lower explosion limits in accordance with	EN 1839:2004	Not indicated	GP
		3.2.4.2 No. 3.4		Maximum safe gap in accordance with	IEC 60079-1:2003	Not indicated	GP
		3.2.4.3 H): Column 16)		The maximum experimental safe gaps shall be determined in accordance with the standard contained in IEC Publication No. 79-1A	IEC 79-1A	Not indicated	GP
		3.2.4.3 L): Remark 38		in accordance with	ASTM D 86-01	Not indicated	GP
3.3.1 No. 61	3.3.1 No. 61	3.3.1 No. 61		The technical name which shall supplement the proper shipping name shall be the ISO common name (see also	ISO 1750:1981	Pesticides and other agrochemicals - common names - (as amended)	GP
3.3.1 No. 199	3.3.1 No. 199	3.3.1 No. 199	3.3.1 No. 199	exhibit a solubility of 5 % or less (see ISO 3711:1990)	ISO 3711:1990	Lead chromate pigments and lead chromate - molybdate pigments – Specifications and methods of test	GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general
3.3.1 No. 649	3.3.1 No. 649	3.3.1 No. 649		To determine the initial boiling point, as mentioned under 2.2.3.1.3, packing group I, the test method according to standard	ASTM D 86-01	Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure, published September 2001 by ASTM International. (Titel in Fußnote 2)	GP
	•		1	Chapter 4	•		
Table (Assimilation list) 4.1.1.19.6 UN No. 1202 Diesel fuel	Table (Assimilation list) 4.1.1.19.6 UN No. 1202 Diesel fuel			Diesel fuel: complying with EN 590:2004 or with a flashpoint not more than 100 °C	EN 590:2004	not provided	GP
Table (Assimilation list) 4.1.1.19.6 UN No. 1202 heating oil, light	Table (Assimilation list) 4.1.1.19.6 UN No. 1202 heating oil, light			Heating oil, light: complying with EN 590:2004 or with a flashpoint not more than 100 °C	EN 590:2004	not provided	GP
4.1.4.1 P200 10)	4.1.4.1 P200 10)		4.1.4.1 P200 (4)	Material compatibility (for gases see	ISO 11114-1:1997	not provided	D
					ISO 11114-2:2000	not provided	D
4.1.4.1 P200 10) p)	4.1.4.1 P200 10) p)		4.1.4.1 P200 10) p)	the working pressure and the quantity of acetylene shall not exceed the values prescribed in the approval or in	ISO 3807-1:2000	not provided	D
					ISO 3807-2:2000	not provided	D
4.1.4.1 P200 10) p)	4.1.4.1 P200 10) p)		4.1.4.1 P200 10) p)	For UN No. 1001 acetylene, dissolved: cylinders shall contain a quantity of acetone or suitable solvent as specified in the approval (see	ISO 3807-1:2000	not provided	D
				For UN No. 1001 acetylene, dissolved: cylinders shall contain a quantity of acetone or suitable solvent as specified in the approval (see	ISO 3807-2:2000	not provided	D

ADR 2009	RID 2009	ADN 2009	UN Model	Reference text	Referenced	Referenced	Character of
subsection/	subsection/	subsection/	Reg.'s, Rev.		Standard	Standard title	standard
para	para	para	16, para		number		dedicated (D)
							or general
							purpose (GP)
4.1.4.1 P200 10) p)	4.1.4.1 P200 10) p)		4.1.4.1 P200 10) p)	pressure of 52 bar shall be applied only to cylinders conforming to	ISO 3807-2:2000	not provided	D
4.1.4.1 P200 10) s)	4.1.4.1 P200 10) s)		4.1.4.1 P200 10) s)	UN pressure receptacles shall be cleaned in accordance with	ISO 11621:1997	not provided	D
4.1.4.1 P200 10) u)	4.1.4.1 P200 10) u)		4.1.4.1 P200 10) u)	when the alloy of the pressure receptacle has been subjected to stress corrosion testing as specified in	ISO 7866:1999	not provided	GP
4.1.4.1 P200 10) v) b)	4.1.4.1 P200 10) v) b)			in accordance with the requirements of a technical code or a standard recognised by the competent authority, or standard	EN 1440:1996	Transportable refillable welded steel cylinders for liquefied petroleum gas (LPG) - Periodic requalification	D
4.1.4.1 P200 11)	4.1.4.1 P200 11)			The applicable requirements of this packing instruction are considered to have been complied with if the following standards, as relevant, are applied:	EN 1919:2000	Transportable gas cylinders. Cylinders for gases (excluding acetylene and LPG) - Inspection at time of filling	D
4.1.4.1 P200 11)	4.1.4.1 P200 11)			The applicable requirements of this packing instruction are considered to have been complied with if the following standards, as relevant, are applied:	EN 1920:2000	Transportable gas cylinders. Cylinders for compressed gases (excluding acetylene) - Inspection at time of filling	D
4.1.4.1 P200 11)	4.1.4.1 P200 11)			The applicable requirements of this packing instruction are considered to have been complied with if the following standards, as relevant, are applied:	EN 12754:2001	Transportable gas cylinders. Cylinders for dissolved acetylene - Inspection at time of filling	D
4.1.4.1 P200 11)	4.1.4.1 P200 11)			The applicable requirements of this packing instruction are considered to have been complied with if the following standards, as relevant, are applied:	EN 13365:2002+ A1:2005	Transportable gas cylinders – Cylinder bundles for permanent and liquefied gases (excluding acetylene) – Inspection at the time of filling	D
4.1.4.1 P200 11)	4.1.4.1 P200 11)			The applicable requirements of this packing instruction are considered to have been complied with if the following standards, as relevant, are applied:	EN 1439:2008 (except 3.5. and Annex C)	LPG equipment and accessories - Transportable refillable welded and brazed steel Liquefied Petroleum Gas (LPG) cylinders - Procedures for checking before, during and after filling	D

ADR 2009	RID 2009	ADN 2009	UN Model	Reference text	Referenced	Referenced Standard title	Character of
para	para	para	16, para		number	Stanuard title	dedicated (D)
			.,				or general
4.1.4.1 P200 11)	4.1.4.1 P200 11)			The applicable requirements of this packing instruction are considered to have been	EN 14794:2005	LPG equipment and accessories - Transportable refillable aluminium	purpose (GP) D
				complied with if the following standards, as relevant, are applied:		cylinders for liquefied petroleum gas (LPG) - Procedure for checking before, during and after filling	
4.1.4.1 P200 11)	4.1.4.1 P200 11)			The applicable requirements of this packing instruction are considered to have been complied with if the following standards, as relevant, are applied:	EN 1801:1998	Transportable gas cylinders – Filling conditions for single acetylene cylinders (including list of permissible porous materials)	D
4.1.4.1 P200 11)	4.1.4.1 P200 11)			The applicable requirements of this packing instruction are considered to have been complied with if the following standards, as relevant, are applied:	EN 12755:2000	Transportable gas cylinders – Filling conditions for acetylene bundles	D
			4.1.6.1.2	The provisions of shall be met as applicable.	ISO 11114-1:1997	not provided	D
					ISO 11114-2:2000	not provided	D
			4.1.6.1.8	For pressure receptacles the requirements of ISO 11117:1988 shall be met;	ISO 11117:1988	not provided	D
				for ISO 10297:2006 shall be met.	ISO 10297:2006	not provided	D
				For the valve protection requirements specified in ISO 16111:2008 shall be met.	ISO 16111:2008	not provided	D
4.1.6.14	4.1.6.14			For other pressure receptacles, the requirements of section 4.1.6 are considered to have been complied with if the following standards, as relevant, are applied:	ISO 11114-1:1997	Transportable gas cylinders – Compatibility of cylinder and valve materials with gas contents – Part 1: Metallic Materials	D
					ISO 11114-2:2000	Transportable gas cylinders – Compatibility of cylinder and valve materials with gas contents – Part 2: Non-metallic Materials	D
					ISO 11621:2005	Gas cylinders – Procedures for change of gas service	D

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
					EN ISO 10297:2006 Annex A	Gas cylinder – Refillable gas cylinder valves – Specification and type testing	D
					EN 13152:2001 + A1:2003	Testing and specifications of LPG cylinder valves – self closing	D
					EN 13153:2001 + A1:2003	Testing and specifications of LPG cylinder valves – manually operated	D
					ISO 11117:1998	Gas Cylinders – Valve Protection caps and valve guards for industrial and medical gas cylinders – Design construction and tests	D
					EN 962:1996 + A2:2000	Valve protection caps and valve guards for industrial and medical gas cylinders – Design, construction and tests	D
			4.3.2.4.2	Such bags shall be capable of passing the tests according to ISO 7765-1:1988 and ISO 6383-2:1983	ISO 7765-1:1988	Plastics film and sheeting - Dtermination of impact resistence by the free-falling dart method - Part 1: Staircase methods	GP
					ISO 7765-2:1983	Plastics film and sheeting - Dtermination of impact resistence by the free-falling dart method - Part 2: Elmendorf method	GP
	-		-	Chapter 5			
5.2.1.9.1	5.2.1.9.1	5.2.1.9.1	5.2.1.7.1	shall be legibly marked with package orientation arrows which are similar to the illustration shown below or with those meeting the specifications of	ISO 780:1985	not provided	GP
5.2.2.2.1.2	5.2.2.2.1.2	5.2.2.2.1.2	5.2.2.2.1.2	which have been reduced in size, according to the dimensions outlined in	ISO 7225:2005	Gas cylinders - Precautionary labels	D

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general
5.2.2.2.1.2	5.2.2.2.1.2	5.2.2.2.1.2		Notwithstanding the provisions of 5.2.2.1.6, labels may overlap to the extent provided for by	ISO 7225:2005	not provided	purpose (GP) D
5.4.3.4 Instructions in writing - page model				e.g. as described in the	EN 471	not provided	GP
5.4.3.4 Instructions in writing - page model - Foot Note b)				which is similar to that described in the	EN 141	not provided	GP
				Chapter 6			
6.1.1.4 Note	6.1.1.4 Note		6.1.1.4 Note	ISO 16106:2006 "Packaging – Transport packages for dangerous goods – Dangerous goods packagings, intermediate bulk containers (IBCs) and large packagings – Guidelines for the application of ISO 9001" provides acceptable guidance on procedures which may be followed.	ISO 16106:2006	Packaging – Transport packages for dangerous goods - Dangerous goods packagings, intermediate bulk containers (IBCs) and large packagings - Guidelines for the application of ISO 9001	D
6.1.3.2	6.1.3.2		6.1.3.2	Nominal thickness of metal shall be determined according to the appropriate ISO standard, for example ISO 3574:1999 for steel	ISO 3574:1999		

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
6.1.4.1.1 Note	6.1.4.1.1 Note		6.1.4.1.1 Note	In the case of carbon steel drums, "suitable" steels are identified in	ISO 3573:1999	Hot rolled carbon steel sheet of commercial and drawing qualities	GP
					ISO 3574:1999	Cold-reduced carbon steel sheet of commercial and drawing qualities	GP
				For carbon steel drums below 100 litres "suitable" steels in addition to the	ISO 11949:1995	Cold-reduced electrolytic tinplate	GP
			above standards are also identified in	ISO 11950:1995	Coldreduced electrolytic chromium/chromiu m oxide-coated steel	GP	
					ISO 11951:1995	Coldreduced blackplate in coil form for the production of tinplate or electrolytic chromium/chromiu m-oxide coated steel	GP
6.1.4.8.8 Note	6.1.4.8.8 Note			ISO 16103:2005 – provides additional guidance on procedures to be followed in approving the use of recycled plastics material	ISO 16103:2005	Packaging – Transport packaging for dangerous goods - Recycled plastics material	D
6.1.4.12.1	6.1.4.12.1		6.1.4.12.1	The water resistance of the outer surface shall be such that the increase in mass, as determined in a test carried out over a period of 30 minutes by the Cobb method of determining water absorption, is not greater than 155 g/m2 - see	ISO 535:1991	not provided	GP
Footnote 3 (6.1.5.3)	Footnote 3 (6.1.5.3)			6.1.5.3 Drop test See ISO Standard 2248	ISO 2248	not provided	GP
6.1.5.3.5 c)	6.1.5.3.5 c)			(corresponding to a flow time of 30 seconds with an ISO flow cup having a jet orifice of 6 mm diameter in accordance with ISO Standard 2431:1993)	ISO 2431:1993	not provided	GP
			6.2.1.6.1 (d) NOTE 2	ISO may be used as a guide for aucustic emission testing procedures	ISO 16148	not provided	GP
			6.2.1.6.1 (d) NOTE 3	test may be replaced by	ISO 10461:2005	not provided	D

Standards referenced in RID, ADR, ADN and UN Model Regulations

ADR 2009	RID 2009	ADN 2009	UN Model	Reference text	Referenced	Referenced	Character of
subsection/	subsection/	subsection/	Reg.'s, Rev.		Standard	Standard title	standard
para	para	para	16, para		number		dedicated (D)
							or general
							purpose (GP)
6.2.2.1.1	6.2.2.1.1		6.2.2.1.1.	The following standards apply for the design, construction, and initial inspection and test of UN cylinders, except that inspection requirements related to the conformity assessment system and approval shall be in accordance with 6.2.2.5	ISO 9809-1:1999	Gas cylinders – Refillable seamless steel gas cylinders – Design, construction and testing – Part 1: Quenched and tempered steel cylinders with tensile strength less than 1 100 Mpa	D
					ISO 9809-2:2000	Gas cylinders – Refillable seamless	D
						steel gas cylinders – Design, construction and testing – Part 2: Quenched and tempered steel cylinders with	
						tensile strength greater than or equal to 1 100 MPa	
					ISO 9809-3:2000	Gas cylinders – Refillable seamless steel gas cylinders – Design, construction and testing – Part 3: Normalized steel cylinders	D
					ISO 7866:1999	Gas cylinders – Refillable seamless aluminium alloy gas cylinders – Design, construction and testing	D
					ISO 4706:2008	Gas cylinders - Refillable welded steel cylinders - Test pressure 60 bars and below	D

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
					ISO 18172-1:2007	Gas cylinders - Refillable welded stainless steel cylinders - Part 1:Test pressure 6 MPa and below	D
					ISO 20703:2006	Gas cylinders – Refillable welded aluminium- alloy cylinders – Design, construction and testing	D
					ISO 11118:1999	Gas cylinders – Non-refillable metallic gas cylinders – Specification and test methods	D

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
					ISO 11119-1:2002	Gas cylinders of composite construction – Specification and test methods – Part 1: Hoop wrapped composite gas cylinders	D
					ISO 11119-2:2002	Gas cylinders of composite construction – Specification and test methods – Part 2: Fully wrapped fibre reinforced composite gas cylinders with load- sharing metal liners	D
					ISO 11119-3:2002	Gas cylinders of composite construction – Specification and test methods – Part 3: Fully wrapped fibre reinforced composite gas cylinders with non- load-sharing metallic or non- metallic liners	D
6.2.2.1.2	6.2.2.1.2		6.2.2.1.2	The following standard apply for the design, construction, and initial inspection and test of UN tubes, except that inspection requirements related to the conformity assessment system and approval shall be in accordance with 6.2.2.5:	ISO 11120:1999	Gas cylinders – Refillable seamless steel tubes for compressed gas transport, of water capacity between 150 I and 3 000 I – Design, construction and testing	
6.2.2.1.3	6.2.2.1.3		6.2.2.1.3	The following standards apply for the design, construction and initial inspection and test of UN acetylene cylinders, except that inspection requirements related to the conformity assessment system and approval shall be in accordance with 6.2.2.5: For the cylinder shell:	ISO 9809-1:1999	Gas cylinders – Refillable seamless steel gas cylinders – Design, construction and testing – Part 1: Quenched and tempered steel cylinders with tensile strength less than 1 100 Mpa	D
					ISO 9809-3:2000	ISO 9809-3:2000 Gas cylinders – Refillable seamless steel gas cylinders – Design, construction and testing – Part 3: Normalized steel cylinders	D

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s, Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	para	para	16, para		number		dedicated (D) or general
					ISO 3807-1:2000	Cylinders for acetylene – Basic requirements – Part 1: Cylinders without fusible plugs	D D
					ISO 3807-2:2000	Cylinders for acetylene – Basic requirements – Part 2: Cylinders with fusible plugs	D
6.2.2.1.4	6.2.2.1.4		6.2.2.1.4	The following standard apply for the design, construction, and initial inspection and test of UN cryogenic receptacles, except that inspection requirements related to the conformity assessment system and approval shall be in accordance with 6.2.2.5:	ISO 21029-1:2004	Cryogenic vessels – Transportable vacuum insulated vessels of not more than 1 000 l volume – Part 1: Design, fabrication, inspection and tests	D
			6.2.2.1.5	The following standard apply for the design, construction, and initial inspection and test of UN meatl hydride storage systems, except that inspection requirements related to the conformity assessment system and approval shall be in accordance with 6.2.2.5:	ISO 16111:2008	Transportable gas storage devices - Hydrogen absorbed in reversable metal hydride	D
6.2.2.2	6.2.2.2		6.2.2.2	In addition to the material requirements specified in the pressure receptacle design and construction standards, and any restrictions specified in the applicable packing instruction for the gas(es) to be carried (e.g. packing instruction P200 of	ISO 11114-1:1997	Transportable gas cylinders – Compatibility of cylinder and valve materials with gas contents – Part 1: Metallic materials	D
				4.1.4.1), the following standards apply to material compatibility:	IISO 11114-2:2000	Transportable gas cylinders – Compatibility of cylinder and valve materials with gas contents – Part 2: Non-metallic materials	D
6.2.2.2 Note	6.2.2.2 Note		6.2.2.2 Note	The limitations imposed in ISO 11114-1 on high strength steel alloys at ultimate tensile strength levels up to 1 100 MPa do not apply to UN No. 2203 silane.	ISO 11114-1		D

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general
6.2.2.3	6.2.2.3		6.2.2.3	Service equipment: The following standards apply to closures and their protection:	ISO 11117:1998	Gas cylinders – Valve protection caps and valve guards for industrial and medical gas cylinders – Design, construction and tests	D
				Service equipment: The following standards apply to closures and their protection:	ISO 10297:2006	Transportable gas cylinders – Cylinder valves – Specification and type testing	D
				For UN metal hydride storage systems, the requirements specified in the following standard shall apply to closures and their protection.	ISO 16111:2008	Transportable gas storage devices - Hydrogen absorbed in reversable metal hydride	D
6.2.2.4	6.2.2.4		6.2.2.4	Periodic inspection and test: The following standards apply to the periodic inspection and testing of UN cylinders:	ISO 6406:2005	Periodic inspection and testing of seamless steel gas cylinders	D
					ISO 10461:2005 + A1:2006	Seamless aluminium-alloy gas cylinders testing – Periodic inspection and testing	D
					ISO 10462:2005	Gas cylinders – Transportable cylinders for dissolved acetylene Periodic inspection and maintenance	D
					ISO 11623:2002	Transportable gas cylinders composite gas cylinders – Periodic inspection and testing of composite gas cylinders	D
					ISO 16111:2008	Transportable gas storage devices - Hydrogen absorbed in reversable metal hydride	D

Standards referenced in RID, ADR, ADN and UN Model Regulations

ADR 2009	RID 2009	ADN 2009	UN Model	Reference text	Referenced	Referenced	Character of
subsection/	subsection/	subsection/	Reg.'s, Rev.		Standard	Standard title	standard
para	para	para	r u , para		number		or general
							purpose (GP)
6.2.2.7.1 b)	6.2.2.7.1 b)		6.2.2.7.1 b)	The technical standard (e.g. ISO 9809-1) used for design, manufacture and testing;	ISO 9809-1	not provided	D
6.2.2.7.3 p)	6.2.2.7.3 p)		6.2.2.7.4 (p)	In the case of steel	ISO 11114-1:1997	not provided	D
				pressure receptacles and composite pressure receptacles with steel liner intended for the carriage of gases with a risk of hydrogen embrittlement, the letter "H" showing compatibility of the steel (see ISO 11114-1:1997).			
6.2.2.7.4	6.2.2.7.4		6.2.2.7.5	The following is an example of the markings applied to a cylinder.	ISO 9809-1	not provided	D
			6.2.2.9.2 (b)	The following marks shall	ISO 16111	not provided	D
				be applied; (b) "ISO 16111" (the technical standard used for design, manufacture and testing)			
6.2.2.9	6.2.2.9			Xa means the competent authority, its delegate or inspection body conforming to 1.8.6.4 and accredited according to EN ISO/IEC 17020:2004 type A.	EN ISO/IEC 17020:2004	not provided	GP
				Xb means inspection body conforming to 1.8.6.4 and accredited according to EN ISO/IEC 17020:2004 type B.	EN ISO/IEC 17020:2004	not provided	GP
				IS means an in-house inspection service of the applicant under the surveillance of an inspection body conforming to 1.8.6.4 and accredited according to EN ISO/IEC 17020:2004 type A.	EN ISO/IEC 17020:2004	not provided	GP

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s, Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	рага	рага	1 0 , para		numper		or general
6.2.3.6.1	6.2.3.6.1			Xa means the competent authority, its delegate or inspection body conforming to 1.8.6.4 and accredited according to EN ISO/IEC 17020:2004 type A.	EN ISO/IEC 17020:2004	not provided	GP
				Xb means inspection body conforming to 1.8.6.4 and accredited according to EN ISO/IEC 17020:2004 type B.	EN ISO/IEC 17020:2004	not provided	GP
				IS means an in-house inspection service of the applicant under the surveillance of an inspection body conforming to 1.8.6.4 and accredited according to EN ISO/IEC 17020:2004 type A.	EN ISO/IEC 17020:2004	not provided	GP
6.2.4	6.2.4			If more than one standard is listed as mandatory for the application of the same requirements, only one of them shall be applied, but in full unless otherwise specified in the table below. For materials:	EN 1797-1:1998	Cryogenic vessels - Gas/material compatibility	D
					EN 1797:2001	Cryogenic vessels - Gas/material compatibility	D
					EN ISO 11114- 1:1997	Transportable gas cylinders – Compatibility of cylinder and valve materials with gas contents – Part 1: Metallic materials	D
					EN ISO 11114- 2:2000	Transportable gas cylinders – Compatibility of cylinder and valve materials with gas contents – Part 2: Non-metallic materials	D
					EN ISO 11114- 4:2005 (except method C in 5.3)	Transportable gas cylinders - Compatibility of cylinder and valve materials with gas contents – Part 4: Test methods for selecting metallic materials resistant to hydrogen embrittlement	D

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
					EN 1252-1:1998	Cryogenic vessels – Materials - Part 1: Toughness requirements for temperature below 80 °C	D
6.2.4	6.2.4			If more than one standard is listed as mandatory for the application of the same requirements, only one of them shall be applied, but in full unless otherwise specified in the table below. For marking:	EN 1442:1998 + AC: 1999	Transportable refillable welded steel cylinders for liquefied petroleum gas (LPG) – Design and construction	D
				econ i ci mai angi	EN 1251-1:2000	Cryogenic vessels - Transportable, vacuum insulated, of not more than 1 000 litres volume - Part 1: Fundamental requirements	D
					EN 1089-1:1996	Transportable gas cylinders - Gas cylinder identification (excluding LPG) - Part 1: Stampmarking	D
6.2.4	6.2.4			If more than one standard is listed as mandatory for the application of the same requirements, only one of them shall be applied, but in full unless otherwise specified in the table below. Ere design and	EN 1442:1998 + AC:1999	Transportable refillable welded steel cylinders for liquefied petroleum gas (LPG) – Design and construction	D
				construction:	EN 1442:1998 + A2:2005	Transportable refillable welded steel cylinders for liquefied petroleum gas (LPG) – Design and construction	D
					EN 1442:2006 + A1:2008	Transportable refillable welded steel cylinders for liquefied petroleum gas (LPG) – Design and construction	D
					EN 1800:1998 + AC:1999	Transportable gas cylinders - Acetylene cylinders - Basic requirements and definitions	D
					EN 1800:2006	Transportable gas cylinders - Acetylene cylinders - Basic requirements, definitions and type testing	D

ADR 2009	RID 2009	ADN 2009	UN Model	Reference text	Referenced	Referenced	Character of
subsection/	subsection/	subsection/	Reg.'s, Rev.		Standard	Standard title	standard
para	para	para	16 , para		number		dedicated (D)
							or general
							purpose (GP)
					EN 1964-1:1999	Transportable gas cylinders - Specification for the design and construction of refillable transportable seamless steel gas cylinders of water capacities from 0, 5 litre up to and including 150 litres - Part 1: Cylinders made of seamless steel with an Rm value of less than 1100 Mea	D
						птоо мра	
					EN 1975:1999 (exept Annex 6)	Transportable gas cylinders - Specification for the design and construction of refillable transportable seamless aluminium and aluminium alloy gas cylinders of capacity from 0, 5 litre up to 150 litre	D
					EN 1975:1999+A1:200 3	Transportable gas cylinders - Specification for the design and construction of refillable transportable seamless aluminium and aluminium alloy gas cylinders of capacity from 0, 5 litre up to 150 litre	D
					EN 11120:1999	Gas cylinders - Refillable seamless steel tubes for compressed gas transport, of water capacity between 150 I and 3000 I - Design, construction and testing	D

ADR 2009	RID 2009	ADN 2009	UN Model	Reference text	Referenced	Referenced	Character of
subsection/	subsection/	subsection/	Reg.'s, Rev.		Standard	Standard title	standard
para	para	para	16, para		number		dedicated (D)
							or general
							purpose (GP)
					EN 1964-3:2000	Transportable gas cylinders - Specification for the design and construction of refillable transportable seamless steel gas cylinders of water capacity from 0, 5 litre up to and including 150 litres - Part 3: Cylinders made of seamless stainless steel with an Rm value of less than 1100 MPa	D
					EN 12862:2000	Transportable gas cylinders - Specification for the design and construction of refillable transportable welded aluminium alloy gas cylinders	D
					EN 1251-2:2000	Cryogenic vessels - Transportable vacuum insulated vessels of not more than 1000 litres volume - Part 2: Design, fabrication, inspection and testing	D
					EN 12257:2002	Transportable gas cylinders - Seamless, hoop wrapped composite cylinders	D
					EN 12807:2001(except Annex A)	Transportable refillable brazed steel cylinders for liquefied petroleum gas (LPG) - Design and construction	D

ADR 2009	RID 2009	ADN 2009	UN Model	Reference text	Referenced	Referenced	Character of
subsection/	subsection/	subsection/	Rea.'s. Rev.		Standard	Standard title	standard
para	para	para	16. para		number		dedicated (D)
P	P	P	.e, para				or general
							nurnose (GP)
					EN 1964-2-2001	Transportable gas	
					211 1004 2.2001	cylinders -	D D
						Specification for	
						the design and	
						construction of	
						transportable	
						seamless steel gas	
						cylinders of water	
						capacities from 0, 5	
						including 150 litres	
						Part 2: Cylinders	
						made of seamless	
						steel with an Rm	
						value of 1100 Mpa	
						and above	
					EN 13293:2002	Transportable gas	D
						Specification for	
						the design and	
						construction of	
						refillable	
						seamless	
						normalised carbon	
						manganese steel	
						gas cylinders of	
						to 0.5 litre for	
						compressed,	
						liquefied and	
						dissolved gases	
						carbon dioxide	
					EN 13322-1:2003	ransportable gas	D
						Refillable welded	
						steel gas cylinders -	
						Design and	
						construction -Ppart	
					EN 13322-1:2003 +	Transportable gas	D
					A1:2006	cyilliders - Refillable welded	
						steel gas cylinders -	
						Design and	
						construction -Ppart	
						i. vveided steel	
					EN 13322-2:2003	Transportable gas	D
						Refillable welded	
						steel gas cylinders	
						Design and	
						construction -Ppart	
						stainless steel	

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
					EN 13322-2:2003 + A1:2006	Transportable gas cylinders - Refillable welded steel gas cylinders - Design and construction -Ppart 2: Welded stainless steel	D
					EN 12245:2002	Transportable gas cylinders - Fully wrapped composite gas cylinders	D
					EN 12205:2001	Transportable gas cylinders - Non refillable metallic gas cylinders	D
					EN 13110-2002	Transportable refillable welded aluminium cylinders for liquefied petroleum gas (LPG) – Design and construction	D
					EN 14427:2004	Transportable refillable fully wrapped composite cylinders for liquefied petroleum gases – Design and construction	D
					EN 14427:2004 + A1:2005	Transportable refillable fully wrapped composite cylinders for liquefied petroleum gases – Design and construction	D
					EN 14208:2004	Transportable gas cylinders – Specification for welded pressure drums up to 1000 litres capacity for the transport of gases – Design and construction	D
					EN 14140:2003	Transportable refillable welded steel cylinders for Liquefied Petroleum Gas (LPG) – Alternative design and construction	D

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general
					EN 14140:2003 + A1:2006	LPG equipment and accessories - Transportable refillable welded steel cylinders for LPG - Alternative design and construction	D
					EN 13769:2003	Transportable gas cylinders – Cylinder bundles – Design, manufacture, identification and testing	D
					EN 13769:2003 + A1:2005	Transportable gas cylinders – Cylinder bundles – Design, manufacture, identification and testing	D
					EN 14638-1:2006	Transportable gas cylinders – Refillable welded receptacles of a capacity not exceeding 150 litres – Part 1: Welded austenitic stainless steel cylinders made to a design justified by experimental methods	D
					EN 14893:2006 + AC:2007	LPG equipment and accessories - Transportable LPG welded steel pressure drums with a capacity between 150 litres and 1 000 litres	D
6.2.4	6.2.4			If more than one standard is listed as mandatory for the application of the same requirements, only one of them shall be applied, but in full unless otherwise encrified in the table	EN 849:1996 (except Annex A)	Transportable gas cylinders - Cylinder valves: Specification and type testing	D
				below. For closures:	EN 849:1996/A2:2001	Transportable gas cylinders - Cylinder valves: Specification and type testing	D
					EN ISO 10297: 2006	Transportable gas cylinders - Cylinder valves: Specification and type testing	D

ADR 2009	RID 2009	ADN 2009	UN Model	Reference text	Referenced Standard	Referenced Standard title	Character of
para	para	para	16, para		number		dedicated (D)
							or general
					EN 13152:2001	Specifications and testing of LPG- cylinder valves - Self closing	D
					EN 13152:2001 + A1:2003	Specifications and testing of LPG- cylinder valves - Self closing	D
					EN 13153:2001	Specifications and testing of LPG- cylinder valves – Manually operated	D
					EN 13153:2001 + A1:2003	Specifications and testing of LPG- cylinder valves – Manually operated	D
6.2.4	6.2.4			If more than one standard is listed as mandatory for the application of the same requirements, only one of them shall be applied, but in full unless otherwise specified in the table below. For periodic inspection and test:	EN 1251-3: 2000	Cryogenic vessels – Transportable, vacuum insulated, of not more than 1 000 litres volume – Part 3: Operational requirements	D
					EN 1968:2002 (except Annex B)	Transportable gas cylinders - Periodic inspection and testing of seamless steel gas cylinders	D
					EN 1968:2002 + A1:2005 (except Annex B)	Transportable gas cylinders - Periodic inspection and testing of seamless steel gas cylinders	D
					EN 1802:2002 (except Annex B)	Transportable gas cylinders - Periodic inspection and testing of seamless aluminium alloy gas cylinders	D
					EN 12863:2002	Transportable gas cylinders - Periodic inspection and maintenance of dissolved acetylene cylinders	D
					EN 12863:2002 + A1:2005	Transportable gas cylinders - Periodic inspection and maintenance of dissolved acetylene cylinders	D

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
					EN 1803:2002 (except Annex B)	Transportable gas cylinders - Periodic inspection and testing of welded steel gas cylinders	D
					EN ISO 11623:2002 (except clause 4)	Transportable gas cylinders - Periodic inspection and testing of composite gas cylinders	D
					EN 14189:2003	Transportable gas cylinders - Inspection and maintenance of cylinder valves at time of periodic inspection of gas cylinders	D
					EN 14876:2007	Transportable gas cylinders - Periodic inspection and testing of welded steel pressure drums	D
					EN 14912:2005	LPG equipment and accessories - Inspection and maintenance of LPG cylinder valves at time of periodic inspection of cylinders	D
6.2.5.4.2	6.2.5.4.2			A lower minimum elongation value is acceptable on condition that an additional test approved by the competent authority of the country in which the pressure receptacles are made proves that safety of carriage is ensured to the same extent as in the case of pressure receptacles constructed to comply with the characteristics given in the table in 6.2.5.4.1 (see also EN 1975:1999 + A1:2003).	EN 1975:1999 + A1:2003	not provided	D

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s, Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	para	para	16 , para		number		dedicated (D)
							or general
0.0.0.4	0.0.0.4				EN 447-0000	New wefilleble	purpose (GP)
6.2.6.4	6.2.6.4			The requirements of this section are deemed to be met if the following standards are complied with:	EN 417:2003	Non-refillable metallic gas cartridges for liquefied petroleum gases, with or without a valve, for use with portable appliances - Construction, inspection, testing and marking	GP
6.3.2.2 Note	6.3.2.2 Note		6.3.2.2 Note	"Guidelines for the application of ISO 9001" provides acceptable guidance on procedures which may be followed.	ISO 16106:2006	Packaging – Transport packages for dangerous goods – Dangerous goods packagings, intermediate bulk containers (IBCs) and large packagings – Guidelines for the application of ISO 9001	D
6.4.5.4.4	6.4.5.4.4		6.4.5.4.4	They are designed to conform to ISO 1496- 1:1990:	ISO 1496-1:1990	Series 1 Containers - Specifications and Testing - Part 1: General Cargo Containers not provided	GP
					amendments 1:1993, 2:1998, 3:2005, 4:2006 and 5:2006		
6.4.6.1	6.4.6.1		6.4.6.1	Except as allowed in 6.4.6.4, uranium hexafluoride in quantities of 0.1 kg or more shall also be packaged and carried in accordance with the provisions of ISO 7195:1993	ISO 7195:1993	Packaging of uranium hexafluoride (UF6) for transport	D
6.4.6.2 a)	6.4.6.2 a)		6.4.6.2 a)	Withstand without leakage and without unacceptable stress, as specified in ISO	ISO 7195:1993	not provided	D
6.4.6.4 a)	6.4.6.4 a)		6.4.6.4 a)	The packages are designed to international or national standards other than ISO 7195:1993 provided an equivalent level of safety is maintained	ISO 7195:1993	not provided	D

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s, Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	para	para	16 , para		number		dedicated (D) or general
6.5.4.1 Note	6.5.4.1 Note		6.5.4.1 Note	provides acceptable guidance on procedures which may be followed	ISO 16106:2006	Packaging – Transport packages for dangerous goods - Dangerous goods packagings, intermediate bulk containers (IBCs) and large packagings – Guidelines for the application of ISO 9001	purpose (GP) D
6.5.5.4.17	6.5.5.4.17		6.5.5.4.17	The water resistance of the outer surface shall be such that the increase in mass, as determined in a test carried out over 30 minutes by the Cobb method of determining water absorption, is not greater than 155 g/m2 (see	ISO 535:1991	not provided	GP
6.5.5.3	6.5.5.5.3		6.5.5.3	The water resistance of the outer surface shall be such that the increase in mass, as determined in a test carried out over 30 minutes by the Cobb method of determining water absorption, is not greater than 155 g/m2 (see	ISO 535:1991	not provided	GP
6.5.5.5.4	6.5.5.5.4		6.5.5.5.4	The walls, including top and bottom, shall have a minimum puncture resistance of 15 J measured according to	ISO 3036:1975	not provided	GP
6.6.1.2 Note	6.6.1.2 Note		6.6.1.2 Note	provides acceptable guidance on procedures which may be followed.	ISO 16106:2006	Packaging – Transport packages for dangerous goods – Dangerous goods packagings, intermediate bulk containers (IBCs) and large packagings – Guidelines for the application of ISO 9001	D
6.6.4.4.1	6.6.4.4.1		6.6.4.4.1	The water resistance of the outer surface shall be such that the increase in mass, as determined in a test carried out over 30 minutes by the Cobb method of determining water absorption, is not greater than 155 g/m2 (see	ISO 535:1991	not provided	GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
6.6.4.4.2	6.6.4.4.2		6.6.4.4.2	The walls, including top and bottom, shall have a minimum puncture resistance of 15 J measured according to	ISO 3036:1975	not provided	GP
6.7.2.1	6.7.2.1		6.7.2.1	Fine grain steel means steel which has a ferritic grain size of 6 or finer when determined in accordance with	ASTM E 112-96	not provided	GP
					EN 10028-3	not provided	GP
6.7.2.3.3.4	6.7.2.3.3.4		6.7.2.3.3.4	The permanent elongation at fracture shall be measured on test specimens of rectangular cross sections in accordance with	ISO 6892:1998	not provided	GP
6.7.2.13.2	6.7.2.13.2		6.7.2.13.2	The rated flow capacity marked on the spring- loaded pressure-relief devices shall be determined according to	ISO 4126-1:1991	not provided	GP
6.7.2.17.5 d)	6.7.2.17.5 d)		6.7.2.17.5 d)	Protection of the shell against damage from impact or overturning by use of an ISO frame in accordance with	ISO 1496-3:1995	not provided	GP
6.7.2.18.2 a)	6.7.2.18.2 a)		6.7.2.18.2 a)	The results of the applicable framework test specified in	ISO 1496-3:1995	not provided	GP
6.7.3.3.3.4	6.7.3.3.3.4		6.7.3.3.3.4	The permanent elongation at fracture shall be measured on test specimens of rectangular cross sections in accordance with	ISO 6892:1998	not provided	GP
6.7.3.9.2	6.7.3.9.2		6.7.3.9.2	The rated flow capacity marked on the pressure- relief devices shall be determined according to	ISO 4126-1:1991	not provided	GP

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s, Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	para	para	16 , para		number		dedicated (D) or general
6.7.3.13.5 d)	6.7.3.13.5 d)		6.7.3.13.5 d)	Protection of the shell against damage from impact or overturning by use of an ISO frame in accordance with	ISO 1496-3:1995	not provided	GP
6.7.3.14.2 a)	6.7.3.14.2 a)		6.7.3.14.2 a)	The results of the applicable framework test specified in	ISO 1496-3:1995	not provided	GP
6.7.4.3.3.4	6.7.4.3.3.4		6.7.4.3.3.4	The permanent elongation at fracture shall be measured on test specimens of rectangular cross sections in accordance with	ISO 6892:1998	not provided	GP
6.7.4.8.2	6.7.4.8.2		6.7.4.8.2	The rated flow capacity marked on the pressure- relief devices shall be determined according to	ISO 4126-1:1991		GP
6.7.4.12.5 d)	6.7.4.12.5 d)		6.7.4.12.5 d)	Protection of the shell against damage from impact or overturning by use of an ISO frame in accordance with	ISO 1496-3:1995	not provided	GP
6.7.4.13.2 a)	6.7.4.13.2 a)		6.7.4.13.2 a)	The results of the applicable frame-work test specified in	ISO 1496-3:1995		GP
6.7.5.2.4 a)	6.7.5.2.4 a)		6.7.5.2.4 a)	Compatible with the substances intended to be carried (see	ISO 11114-1:1997	not provided	D
6.7.5.2.4 a)	6.7.5.2.4 a)		6.7.5.2.4 a)	Compatible with the substances intended to be carried (see	ISO 11114-2:2000		D

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general
6.7.5.6.2	6.7.5.6.2		6.7.5.6.2	The rated flow capacity marked on spring loaded pressure relief devices for low pressure liquefied gases shall be determined according to	ISO 4126-1:1991	not provided	GP
6.7.5.10.4 d)	6.7.5.10.4 d)		6.7.5.10.4 d)	Protection of the elements and service equipment against damage from impact or overturning by use of an ISO frame in accordance with the relevant provisions of	ISO 1496-3:1995		GP
	6.8.2.4.6			These requirements shall be met for: persons who are approved on the basis of an accrediting procedure in accordance with standard	EN ISO/IEC 17020:2004	General criteria for the operation of various types of bodies performing inspection	GP
6.8.2.6	6.8.2.6			Depending on the date of the tank, the standards listed in the table below shall be applied as indicated For all tanks:	EN 14025:2003 + AC:2005	Tanks for the transport of dangerous goods - Metallic pressure tanks - Design and construction	D
					EN 14025:2008	Tanks for the transport of dangerous goods - Metallic pressure tanks - Design and construction	D
					EN 14432:2006	Tanks for the transport of dangerous goods – Tank equipment for the transport of liquid chemicals – Product discharge and air inlet valves	D
					EN 14433:2006	Tanks for transport of dangerous goods – Tank equipment for the transport of liquid chemicals – Foot valves	D
6.8.2.6	6.8.2.6			Depending on the date of the tank, the standards listed in the table below shall be applied as indicated For testing and inspection:	EN 12972:2001 (with the exception of annexes D et E)	Tanks for transport of dangerous goods - Testing, inspection and marking of metallic tanks	D
					EN 12972:2007	Tanks for transport of dangerous goods - Testing, inspection and marking of metallic tanks	D

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general
6.8.2.6	6.8.2.6			Depending on the date of the tank, the standards listed in the table below shall be applied as indicated For tanks with a maximum working pressure not exceeding 50 kPa and intended for the carriage of substances for which a tank code with the letter "G" is given in column (12) of Table A of Chapter 3.2:	EN 13094:2004	Tanks for the transport of dangerous goods – Metallic tanks with a working pressure not exceeding 0.5 bar – Design and construction	D D
6.8.2.6				Depending on the date of the tank, the standards listed in the table below shall be applied as indicated For tanks for gases of Class 2:	EN 12493:2001 (except Annex C)	Welded steel tanks for liquefied petroleum gas (LPG) – Road tankers - Design and manufacture	D
					EN 12493:2008 (except Annex C)	LPG equipment and accessories - Welded steel tanks for liquefied petroleum gas (LPG) - Road tankers - Design and manufacture	D
					EN 12252:2000	Equipping of LPG road tankers	D
					EN 12252:2005 + A1:2008	LPG equipment and accessories - Equipping of LPG road tankers	D
					EN 13530-2:2002	Cryogenic vessels - Large transportable vacuum insulated vessels - Part 2: Design, fabrication, inspection and testing	D
					EN 13530- 2:2002 + A1:2004	Cryogenic vessels - Large transportable vacuum insulated vessels - Part 2: Design, fabrication, inspection and testing	D
					EN 14398- 2:2003 (except Table 1)	Cryogenic vessels - Large transportable non-vacuum insulated vessels - Part 2: Design, fabrication, inspection and testing	D

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general
6.8.2.6	6.8.2.6			Depending on the date of the tank, the standards listed in the table below shall be applied as indicated For tanks intended for the carriage of liquid petroleum products and other dangerous substances of Class 3 which have a vacour	EN 13094:2004	Tanks for the transport of dangerous goods – Metallic tanks with a working pressure not exceeding 0.5 bar – Design and construction	purpose (GP) D
				pressure not exceeding 110 kPa at 50 °C and petrol, and which have no toxic or corrosive subsidiary hazard:	EN 13082:2001	Tanks for transport of dangerous goods – Service equipment for tanks – Vapour transfer valve	D
					13308:2002	Tanks for transport of dangerous goods - Service equipment for tanks – Non pressure balanced footvalve	D
					EN 13314:2002	Tanks for transport of dangerous goods - Service equipment for tanks – Fill hole cover	D
					EN 13316:2002	Tanks for transport of dangerous goods - Service equipment for tanks - Pressure balanced footvalve	D
					EN 13317:2002	Tanks for transport of dangerous goods - Service equipment for tanks - Manhole cover assembly	D
					EN 13317:2002 (except for the figure and table B.2 in Annex B) (The material shall meet the requirements of standard EN 13094:2004, Clause 5.2)	Tanks for transport of dangerous goods – Service equipment for tanks - Manhole cover assembly	D
					EN 13317:2002 + A1:2006	Tanks for transport of dangerous goods - Service equipment for tanks - Manhole cover assembly	D

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
					EN 14595:2005	Tanks for transport of dangerous goods - Service equipment for tanks - Pressure and vacuum breather vent	D
6.8.3.6				Depending on the date of the tank, the standards listed in the table below shall be applied as indicated	EN 13807:2003	Transportable gas cylinders - Battery vehicles - Design, manufacture, identification and testing	D
	6.8.4. b) TE 25 c)			Sandwich cover for tank ends If protection is provided by a sandwich cover, it shall cover the entire area of the tank ends and shall have a specific energy absorption capacity of at least 22 kJ (corresponding to a wall thickness of 6 mm), which shall be measured in accordance with the method described in Annex B to EN standard	EN 13094	not provided	D
6.8.4 c) TA 4	6.8.4 c) TA 4			The conformity assessment procedures of section 1.8.7 shall be applied by the competent authority, its delegate or inspection body conforming to 1.8.6.4 and accredited to	EN ISO/IEC 17020:2004	not provided	GP
6.8.4 e) TT 9	6.8.4 e) TT 9			For inspections and tests (including supervision of the manufacture) the procedures of section 1.8.7 shall be applied by the competent authority, its delegate or inspection body conforming to 1.8.6.4 and accredited according to	EN ISO/IEC 17020:2004	not provided	GP
6.8.5.2.1	6.8.5.2.1			The minimum impact strength (see 6.8.5.3.1 to 6.8.5.3.3) for test-pieces with the longitudinal axis at right angles to the direction of rolling and a V-shaped notch (conforming to ISO)	ISO R 148	not provided	GP
6.8.5.4	6.8.5.4			The requirements of 6.8.5.2 and 6.8.5.3 shall be deemed to have been complied with if the following relevant standards have been applied:	EN 1252-1:1998	General criteria for the operation of various types of bodies performing inspection	GP

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s, Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	para	para	16, para		number		dedicated (D) or general
					EN 1252-2:2001	Cryogenic vessels - Materials - Part 2: Toughness requirements for temperature between - 80 °C and - 20 °C	GP
6.9.2.3.2	6.9.2.3.2			The heat distortion temperature (HDT) of the resin, determined in accordance with	ISO 75-1:1993	not provided	GP
6.9.2.3.3	6.9.2.3.3			The reinforcement material of the structural layers shall be a suitable grade of fibres such as glass fibres of type E or ECR according to	ISO 2078:1993	not provided	GP
				For the internal surface liner, glass fibres of type C according to	ISO 2078:1993	not provided	GP
6.9.2.5	6.9.2.5			The tests shall be carried out, in accordance with the requirements of	EN 61:1977	not provided	GP
				where " α " is the creep factor and " β " is the ageing factor determined in accordance with	EN 978:1997	not provided	GP
				where "α" is the creep factor and "β" is the ageing factor determined in accordance withafter performance of the test according to	EN 977:1997	not provided	GP
6.9.2.10	6.9.2.10			is the bending shear strength according to	EN ISO 14125:1998	not provided	GP
6.9.4.2.1	6.9.4.2.1			The elongation at fracture according to	EN ISO 527-5:1997	not provided	GP
				and the heat distortion temperature according to	ISO 75-1:1993	not provided	GP

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s, Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	para	para	16, para		number		dedicated (D) or general
6.9.4.2.2	6.9.4.2.2			Tensile strength, elongation at fracture and modulus of elasticity according to	EN ISO 527-5:1997	not provided	GP
				Bending strength and deflection established by the bending creep test according to	EN 14125:1998	not provided	GP
				In addition, the creep factor / and the ageing factor 0 shall be determined by this test and according to	EN 978:1997	not provided	GP
6.9.4.2.3	6.9.4.2.3			The interlaminate shear strength of the joints shall be measured by testing representative samples in the tensile test according to	EN ISO 14130:1997	not provided	GP
6.9.4.2.4	6.9.4.2.4			shall be subjected to the chemical compatibility test according to	EN 977:1997	not provided	GP
				the loss of strength and elasticity modulus measured by the bending test according to	EN 978:1997	not provided	GP
6.9.4.3.3	6.9.4.3.3			The prototype shall be subjected to the ball drop test according to	EN 976-1:1997	not provided	GP
6.11.3.1.1	6.11.3.1.1			The general design and construction requirements of this sub-section are deemed to be met if the bulk container complies with the requirements of	ISO 1496-4:1991	Series 1 Freight containers- Specification and testing – Part 4: Non pressurized containers for dry bulk	GP

ADR 2009	RID 2009	ADN 2009	UN Model	Reference text	Referenced Standard	Referenced Standard title	Character of
para	para	para	16, para		number	Stanuaru title	dedicated (D)
							or general
6.11.3.1.2	6.11.3.1.2			Containers designed and	ISO 1496-1:1990	Series 1 Freight	GP
				tested in accordance with		containers- Specification and	
						testing - Part 1: General cargo	
						containers for general purposes	
						5 F- F	
				designed to strengthen the end walls and to improve	ISO 1496-4:1991	not provided	GP
				the longitudinal restraint as necessary to comply with			
				the test requirements of			
6.12.5 Note				Materials classified as class B-s3-d2 according to	EN 13501-1:2002	not provided	GP
				standard EN 13501 1:2002 are deemed to fulfil the fire			
				resistance requirement.			
70000	70000)			Chapter 7	100 7705 4 4000		
7.3.2.6.2 C)	7.3.2.6.2 C)			be capable of passing the	150 7765-1:1988	sheeting -	GP
				tests for tear and impact resistance according to		Determination of impact resistance	
						by the free-falling	
						1: Staircase	
						methods	
				Such plastics bags shall	ISO 6383-2:1983	Plastics - Film and	GP
				tests for tear and impact		Determination of	
				resistance according to		Part 2: Elmendorf	
				Chaptor 9		method	
8.1.4.3				The extinguishing agent	EN 3-1:1996	Portable fire	GP
				shall be suitable for use on a vehicle and shall comply		extinguishers - Part 1: Description.	
				with the relevant		duration of	
				Portable fire extinguishers		and b fire test	
					EN 3-2:1996	Portable fire	GP
					2.110 2.1000	extinguishers - Part	0.
						dielectric test,	
						tamping test, special provisions	
					EN 2 2:1004	Portable fire	CP
					EN 3-3.1994	extinguishers - Part	GF
						resistance to	
						pressure, mechanical tests	
					EN 2 4:4000	Portable firs	00
					EN 3-4.1990	extinguishers - Part	GP
						4: Charges, minimum required	
						fire	

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s, Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	para	para	16 , para		number		dedicated (D) or general
					EN 3-5:1996	Portable fire extinguishers - Part 5: Specification and supplementary tests	GP
					EN 3-6:1995	Portable fire extinguishers - Part 6: Provisions for the attestation of conformity of portable fire extinguishers in accordance with EN 3 Part 1 to Part 5	GP
8.1.4.3 Footnote				For the definition of the inflammability classes, see Standard EN 2:1992 Classification of fires.	EN 2:1992	Classification of fires	GP
8.1.5.2				The following equipment shall be carried A warning vest (e.g. as described in the EN 471 standard);	EN 471	not provided	GP
8.1.5.3 Footnote 3)				Additional equipment required for certain classes: For example an emergency escape mask with a combined gas/dust filter of the A1B1E1K1-P1 or A2B2E2K2-P2 type which is similar to that described in the EN 141 standard.	EN 141	Respiratory protective devices - Particle filters - Requirements, testing, marking	GP
		8.1.6.2		Hoses and hose assemblies used for loading, unloading or delivering products shall comply with European standard	EN 12115:1999	Rubber and thermoplastics hoses and hose assemblies	GP
					EN 13765:2003	Thermoplastic multilayer (non- vulcanized) hoses and hose assemblies	GP
					EN 10380:2003	Corrugated metal hoses and hose assemblies	GP
				They shall be checked and inspected in accordance with table 6 of standard	EN 12115:1999	not provided	GP

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s. Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	para	para	16, para		number	••••••	dedicated (D)
							purpose (GP)
				They shall be checked and inspected in accordance with table 6 of standard EN or table K.1 of standard	EN 13765:2003	not provided	GP
				They shall be checked and inspected in accordance with table 6 of standard EN .or paragraph 7 of standard	EN 10380:2003	not provided	GP
				Chapter 9			
		9.1.0.40.2.5		The electrical installations are deemed to meet this requirement if they conform to the	IEC 60331-21:1999	not provided	GP
		9.1.0.56.3		For movable cables permitted in accordance with 9.1.0.56.2 above, only rubber-sheathed cables of type H07 RN-F in accordance with standard	IEC 60245-4:1999	not provided	GP
9.1.1.2 a)				FL vehicle means: A vehicle intended for the carriage of liquids having a flash-point of not more than 60°C (with the exception of diesel fuel complying with standard	EN 590:2004	not provided	GP
				gas oil, and heating oil (light) - UN No. 1202 - with a flash-point as specified in standard	EN 590:2004	not provided	GP
9.2.2.3.3				The switch shall have a casing with protection degree IP 65 in accordance with	IEC 529	not provided	GP
9.2.2.5.1 a)				Those parts of the electrical installation including the leads which shall remain energized when the battery master which is a strength of the strength o	IEC 60079-0	not provided	GP
				switch is open, shall be suitable for use in hazardous areas. Such equipment shall meet the general requirements of	IEC 60079-14	not provided	GP
					IEC 60079-1	not provided	GP

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s, Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	para	para	16 , para		number		dedicated (D) or general
					IEC 60079-2	not provided	GP
					IEC 60079-5	not provided	GP
					IEC 60079-6	not provided	GP
					IEC 60079-7	not provided	GP
					IEC 60079-11	not provided	GP
					IEC 60079-15	not provided	GP
					IEC 60079-18	not provided	GP
9.2.2.5.1 a) Footnote 1)				The requirements of IEC 60079 part 14 do not take precedence over the requirement of this Part.	IEC 60079-14	not provided	GP
9.2.2.5.1 a) Footnote 2)				As an alternative, the general requirements of EN 50014 and the additional requirements of EN 50015, 50016, 50017, 50018, 50019, 50020	EN 50014	not provided	GP
			50021 or 50028 may be used	EN 50015	not provided	GP	
					EN 50016	not provided	GP
					EN 50017	not provided	GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
					EN 50018	not provided	GP
					EN 50019	not provided	GP
					EN 50020	not provided	GP
					EN 50021	not provided	GP
					EN 50028	not provided	GP
9.2.2.5.1 b)				For the application of IEC 60079 part 141, the following classification shall be used:	IEC 60079-14	not provided	GP
9.2.2.5.1 c)				The supply leads for permanently energised equipment shall either comply with the provisions of	IEC 60079-7	not provided	GP
9.2.2.6.3				Electrical connections between motor vehicles and trailers shall have a protection degree IP54 in accordance with IEC standard	IEC 529	not provided	GP
				Examples of appropriate connections are given in	ISO 12098:2004	not provided	GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general
				Examples of appropriate connections are given in	ISO 7638:1997	not provided	GP GP
		9.3.1.21.5 a)		The signal shall be transmitted to the shore facility via a watertight two- pin plug of a connector device in accordance with standard	EN 60309-2:1999	not provided	GP
		9.3.1.21.5 b)		It shall be possible for the binary signal of the shore facility to be transmitted via a watertight two-pole socket or a connector device in accordance with standard	EN 60309-2:1999	not provided	GP
		9.3.1.40.2.5 c)		The electrical installations are deemed to meet this requirement if they conform to the standard	IEC 60331-21:1999	not provided	GP
		9.3.1.56.5		For movable cables intended for signal lights and gangway lighting, only sheathed cables of type H 07 RN-F in accordance with standard	IEC 60245-4:1999	not provided	GP
		9.3.2.21.5 a)		The signal shall be transmitted to the shore facility via a watertight two- pin plug of a connector device in accordance with standard	EN 60309-2:1999	not provided	GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text It shall be possible for the binary signal of the shore facility to be transmitted via a watertight two-pole socket or a connector device in accordance with standard	Referenced Standard number EN 60309-2:1999	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP) GP
		9.3.2.21.5 c)		Vessels which may be delivering products required for operation of vessels shall be equipped with a transhipment facility compatible with European standard	EN 12827:1996	not provided	GP
		9.3.2.40.2.5 c)		The control lines located in the space to be protected shall be so designed as to remain capable of operating in the event of a fire for a minimum of 30 minutes. The electrical installations are deemed to meet this requirement if they conform to the	IEC 60331-21:1999	not provided	GP
		9.3.2.56.5		For movable cables intended for signal lights and gangway lighting, only sheathed cables of type H 07 RN-F in accordance with standard	IEC 60245-4:1994	not provided	GP
9.3.3 Note 1)				In the case of flammability, this requirement will be deemed to be met if, in accordance with the procedure specified in ISO standard	ISO 3795:1989	Road vehicles, and tractors and machinery for agriculture and forestry - Determination of burning behaviour of interior materials	GP
		9.3.3.21.5 a)		The signal shall be transmitted to the shore facility via a watertight two- pin plug of a connector device in accordance with standard	EN 60309-2:1999	not provided	GP
		9.3.3.21.5 c)		Supply vessels and other vessels which may be delivering products required for operation shall be equipped with a transshipment facility compatible with European standard	EN 12827:1996	not provided	GP

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general
		9.3.3.21.5 d)		It shall be possible for the binary signal of the shore facility to be transmitted via a watertight two-pole socket or a connector device in accordance with standard	EN 60309-2:1999	not provided	gPurpose (GP) GP
		9.3.3.40.2.5.c)		The electrical installations are deemed to meet this requirement if they conform to the	IEC 60331-21:1999	not provided	GP
9.3.4.2				Materials classified as Class B-s3-d2 according to standard	EN 13501-1:2002	not provided	GP
9.7.8.2	8.2 Electrical equipment vehicles, situated in where an explosive atmosphere is, or m expected to be, pres	Electrical equipment on FL vehicles, situated in areas where an explosive atmosphere is, or may be expected to be, present in	IEC 60079-0	not provided	GP		
				such quantities as to require special precautions, shall be suitable for use in a hazardous area. Such equipment shall meet the	IEC 60079-14	not provided	GP
					IEC 60079-1	not provided	GP
					IEC 60079-2	not provided	GP
					IEC 60079-5	not provided	GP
					IEC 60079-6	not provided	GP
					IEC 60079-7	not provided	GP

ADR 2009	RID 2009	ADN 2009	UN Model	Reference text	Referenced	Referenced Standard title	Character of
para	para	para	16. para		number	Standard title	dedicated (D)
P	P						or general
							purpose (GP)
					IEC 60079-11	not provided	GP
					IEC 60079-18	not provided	GP
				For the application of IEC 60079 part 14 2, the following classification shall be used:	IEC 60079-14	not provided	GP
9.7.8.2 Footnote 2)				As an alternative, the general requirements of EN 50014 and the additional requirements of EN 50015, 50016, 50017, 50018, 50019, 50020 or 50020 mou bo used	EN 50014	not provided	GP
				EN 50015	not provided	GP	
					EN 50016	not provided	GP
					EN 50017	not provided	GP
					EN 50018	not provided	GP
					EN 50019	not provided	GP
					EN 50020	not provided	GP
					EN 50028	not provided	GP

ADR 2009 subsection/	RID 2009 subsection/	ADN 2009 subsection/	UN Model Reg.'s, Rev.	Reference text	Referenced Standard	Referenced Standard title	Character of standard
para	para	para	16, para		number		dedicated (D) or general
9.7.8.3				Permanently energized electrical equipment, including the leads, which is situated outside Zones 0 and 1 shall meet the requirements for Zone 1 for electrical equipment in general or meet the requirements for Zone 2 according to IEC 60079 part 14	IEC 60079-14	not provided	GP
9.7.8.3 Footnote 2)	As an alternative, the 2) As an alternative, the general requirements of EN 50014 and the additional requirements of EN 50015, 50016, 50017, 50018, 50019, 50020 or 50020 area to a constant	As an alternative, the general requirements of EN 50014 and the additional requirements of EN 50015, 50016, 50017, 50018, 50019, 50020 or	EN 50014	not provided	GP		
				50028 may be used.	EN 50015	not provided	GP
			EN 50016	not provided	GP		
			EN 50017	not provided	GP		
					EN 50018	not provided	GP
					EN 50019	not provided	GP
					EN 50020	not provided	GP
					EN 50028	not provided	GP
	Gui	delines Rec	uirements	for the testing of	plastics rece	ptacles	
	7.7 Requirements for the testing of plastics receptacles - Guidelines for 6.1.5.2.7 and 6.5.6.3.6 / Laboratory method B Nr 3.2.1			The tensile test shall be carried out at room temperature (23°C ± 2°C) in accordance with	ISO/R 527	not provided	GP

Rev. 2.9.2010

Standards referenced in RID, ADR, ADN and UN Model Regulations

ADR 2009 subsection/ para	RID 2009 subsection/ para	ADN 2009 subsection/ para	UN Model Reg.'s, Rev. 16, para	Reference text	Referenced Standard number	Referenced Standard title	Character of standard dedicated (D) or general purpose (GP)
	7.7 Requirements for the testing of plastics receptacles - Guidelines for 6.1.5.2.7 and 6.5.6.3.6 / Laboratory method C			the Melt Flow Rate (MFR 190°C/21.6 kg load in accordance with	ISO 1133 - Condition 7	not provided	GP