(Bern, 18-22 March 2002)

Information regarding the development of EN standards for reference in the <u>ADR/RID</u>

Transmitted by the European Committee for Standardisation (CEN)

The document in Appendix is issued as a regular update on the status of the CEN standards that are considered as eventual candidates for reference in ADR/RID.

Since the previous update at the November 2001 session of WP15, the following documents have been issued by CEN for the 6 months public enquiry:

Reference	Title
EN 1975:1999/prA1- Alloy 2001	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
prEN 14140	Transportable refillable welded steel cylinders for liquefied petroleum gas (LPG) - Alternative design and construction
prEN 14189	Transportable gas cylinders - Gas cylinder valves - Inspection and maintenance
prEN 14208	Transportable gas cylinders - Specification for welded gas drums up to 3000 litre capacity for the transport of gases - Design and construction

Those documents can be requested from the CEN National Members (the countries of EEA + Czech Republic) or from the Affiliates or Corresponding Members. The CEN website http://www.cenorm.be/aboutcen/whatis/membership/ can be consulted for more recent information on its members, affiliates or corresponding members.

These documents will be presented to the Joint Meeting by the CEN consultant when they will be at their final stage ready for formal vote, hopefully at the latest for the March 2003 session.

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Reference in RID/ADR (restructured) to published standards and standards in preparation at CEN TC 23/256/261/268/286/296

Notes: the standards (published or in preparation) are noted in the following lists as follows:

- 1. in **normal bold:** standards that have been adopted for reference
- 2. in *italic bold*: standards that have been proposed for future reference
- 3. in normal: standards in preparation for future reference
- 4. in *italic*: "supporting" standards; i.e. standards published or in preparation that are not candidates for future reference in ADR/RID but that are related to the provisions of ADR/RID and useful for the users of the regulations

Part 1 General provisions, definitions and training

1.2 Definitions and units of measurements

Standards referred to in 1999 edition:

ASTM D 4359-90 in the definition of "liquid" and "solid"

Part 2 Classification

2.2 Class specific provisions

2.2.2 Class 2 Gases

2.2.2.1 Criteria

Standards referred to in 1999 edition:

ISO 10156: 1990 flammability and oxidising ability

ISO 10298: 1995 toxicity criteria:(only for the LC50's values) reference deleted at JM Sep.2001

2.2.3 Class 3 Flammable liquids

2.2.3.1 Criteria

Standards referred to in 1999 edition:

ASTM D 4359-90 ISO 2431: 1984

2.2.41 Class 4.1 Flammable solids

2.2.41 Criteria

Standards referred to in 1999 edition:

ASTM D 4359-90 ISO 2431: 1984

2.2.8 Class 8 Corrosive substances

2.2.8.1 Criteria

Standards referred to in 1999 edition:

ASTM G31-72 ISO 9328

2.3 Test methods

2.3.2 tests relating to flammable liquids of Classes 3, 6.1 and 8

Standards referred to in 1999 edition:

for flash-point

ISO 1516; ISO 1523: 1983; ISO 2719: 1988; ISO 3679:1983; ISO 3680: 1983;

EN 22719: 1994

ASTM D56: 1993; ASTM D93: 1994; BS 2000 Part170: 1995; DIN 51755; Part1: 1974; DIN 51755, Part2:

1978; DIN 53213, Part 1: 1978; NF MO7-011:1988; ; NF MO7-036:1984; NF T66-009: 1969

IP 34: 1988 for fluidity

ISO 2137: 1985

Part 3 Dangerous goods list

no reference to standards foreseen

Part 4 Packing requirements (including use of packagings, IBC's, tanks, containers and vehicles for packing purposes)

4.1.4 List of packing instructions

in P200:

Published standar	Published standards referred to in 2001 edition:		
Doc ref	Title of document		
EN 1439:1996	Transportable refillable welded steel cylinders for liquefied petroleum gases (LPG) - Procedures for checking before, during and after refilling (ADR only)		
EN 1440:1996	Transportable refillable welded steel cylinders for liquefied petroleum gases (LPG) - Periodic requalification		
EN 1801:1998	Filling conditions for single acetylene cylinders		
EN 12755:2000	Filling conditions for acetylene bundles		
"Supporting" sta	ndards (see note on top of document)		
EN 1919:2000	Cylinders for liquefiable gases (excluding acetylene) - Inspection at time of filling		
EN 1920:2000	Cylinders for permanent gases - Inspection at time of filling		
EN 12754:2001	Transportable gas cylinders -Cylinders for dissolved acetylene - Inspection at time of filling		
prEN 13096	Transportable gas cylinders - Conditions for filling gases into cylinders - Single component gases		
prEN 13099	Transportable gas cylinders - Conditions for filling gas mixtures into cylinders		
prEN 13365	Transportable gas cylinders - Cylinder bundles for permanent and liquefied gases (excluding acetylene) - Inspection at the time of filling		
prEN 13952	LPG cylinders- Filling procedures		

In P203:

Standards to refer to:

- no reference to standards foreseen

In P204:

Standards referred to: .

- for aerosol dispensers (1950 aerosols): Annex to the **Council Directive 75/324/EEC** as amended bc Commission Directive 94/1/EC
- for 2037 gas cartridges containing 1965 hydrocarbon gas mixture, liquefied:

EN 417: 1992 Non-refillable metallic gas cartridges for liquefied petroleum gases, with or without a valve, for use with portable appliances - Construction, inspection, testing and marking

Standards to refer to in future editions when published:

WI n°	Doc ref	Title of document	Status	
	GAS CARTRIDGES			
157002	2002	Non-refillable metallic gas cartridges for liquefied petroleum gases, with or without a valve, for use with portable appliances - Construction, inspection, testing and marking	Document at formal vote, presented at JM March 2002	

4.1.6 Special packing provisions for goods of Class 2

Published standards referred to in 2001 edition:

Doc ref	Doc ref Title of document	
EN 1795:1997	Gas cylinders (excluding LPG) - Procedures for change of gas service	
	Valve protection caps and valve guards for industrial and medical gas cylinders - design, construction and tests - Amendment 2	

Standards to refer to in future editions when published:

Standards to refer to in rations when pacifical			
WI n°	Doc ref	Title of document	Status

		adopted at JM Sep 2001
849:1996/A2:2001	Amendment 2	for 2003 edition
EN 13152:2001 (impact testing only)	Specifications and testing for liquefied petroleum gas (LPG) - cylinder valves-self closing	submitted to JM at May 2001 meeting
EN 13153:2001 (impact testing only)	Specifications and testing for liquefied petroleum gas (LPG) - cylinder valves-manually operated	submitted to JM at May 2001 meeting

4.2 Use of UN portable tanks

no reference to CEN standard foreseen

4.3 Use of fixed tanks, tank-vehicles, demountable tanks, battery vehicles and RID/ADR tank-containers

"Supporting" standards (see note on top of document)		
Doc ref	Title of document	
prEN 13385	Transportable gas cylinders - Battery vehicles for permanent and liquefied gases (excluding acetylene) - Inspection at the time of filling	
prEN 13720	Filling conditions for acetylene cylinder battery trailers	
prEN 13776	Filling and discharge procedures for LPG road tankers	
	Discharge procedures for LPG rail tankers	
	Tanks for transport of liquid dangerous goods with vapour pressure not exceeding 110 kPa at 50°C and gravity drained (including petrol) - Operating conditions	

Part 5 Consignments procedures

5.2 Marking and labelling of packages

Published standards adopted for reference in 2001 edition in 5.2.2.2.1.2:		
Doc ref	Title of document	
ISO 7225:1994	Precautionary labels for gas cylinders-Design, content and application	
(Dimensions only)		
"Supporting" standards (see note on top of document)		
EN 1089-3:1997	Transportable gas cylinders - Gas cylinder identification - Part 3: Colour coding	

Part 6 Requirements for the construction and testing of packagings, IBC's and tanks

6.1 Requirements for the construction and testing of packagings

Standards to refer to in 6.1.5 when published:

WI n°	Doc ref	Title of document	Status
261231	prEN ISO 16101	Packaging - Transport packages for dangerous goods - Plastics compatibility testing	Document available for comment
261232		Packaging - Transport packages for dangerous goods - Quality assurance programmes for the manufacture and testing of packaging and IBCs	No document ready for comment
261255	prEN ISO16104	Packaging - Transport packages for dangerous goods - Test methods for packaging	Document available for comment
261258		Packaging - Transport packages for dangerous goods - Leak proof testing	No document ready for comment
261999		Packaging - Transport packages for dangerous goods - Recycled plastics material	No document ready for comment

6.2 Requirements for the construction and testing of receptacles, aerosols and cartridges for gases

Published standards i	referred to in 2001 edition in 6.2.2:
Doc ref	Title of document

	CYLINDERS	
Annex I, Parts 1 to 3 to 84/525/EEC	Council directive on the approximation of the laws of the Member States relating to seamless steel gas cylinders	
Annex I, Parts 1 to 3 to 84/526/EEC	Council directive on the approximation of the laws of the Member States relating to welded unalloyed steel gas cylinders	
Annex I, Parts 1 to 3 to 84/527/EEC	,	
EN 1442:1998	$ \begin{array}{c} Transportable \ refillable \ welded \ steel \ cylinders \ for \ lique fied \ petroleum \ gas \ (LPG) \ - \ Design \\ and \ construction \end{array} $	
EN 1800:1998	Transportable gas cylinders - Acetylene cylinders - Basic requirements and definitions	
EN 1964-1:1999	Transportable gas cylinders - Specification for the design and construction of refillable transportable seamless steel gas cylinders of capacity from 0.5 litre up to 150 litre - Part 1: Seamless steel with a maximum Rm value of 1100 N/mm ²	
EN 1964-3:2000	Transportable gas cylinders - Specification for the design and construction of refillable transportable seamless steel gas cylinders of capacity from 0.5 litre up to 150 litre - Part 3: Cylinders made of stainless steel	
EN 1975:1999 (except Annex G)	Transportable gas cylinders - Specification for the design and construction of refillable transportable seamless aluminium alloy gas cylinders of capacity from 0.5 litre up to 150 litre	
EN12862:2000	Transportable gas cylinders - Specification for the design and construction of refillable transportable welded aluminium alloy gas cylinders	
	TUBES	
EN ISO 11120:1999	Gas cylinders - Refillable seamless steel tubes for compressed gas transport of water capacity between 150 litre and 3000 litre - Design, construction and testing	
	PRESSURE DRUMS	
	CRYOGENIC RECEPTACLES	
EN 1251-1:2000	Cryogenic vessels- Transportable, vacuum insulated, of not more than 1000 litres volume -	
EN 1231-1.2000	Part 1: Fundamental requirements	
EN 1251-2:2000	Cryogenic vessels- Transportable, vacuum insulated, of not more than 1000 litres volume - Part 2: Design, fabrication, inspection and testing	
EN 1251-3:2000	Cryogenic vessels- Transportable, vacuum insulated, of not more than 1000 litres volume - Part 3: Operational requirements	
	CYLINDER BUNDLES	
	MATERIALS	
EN 1797 -1: 1998 :2001	Cryogenic vessels-Gas/material compatibility Part 1: Oxygen compatibility (modification of title and reference adopted at JM Sep.2001)	
EN ISO 11114- 1:1997	Transportable gas cylinders - Compatibility of cylinder and valve materials with gas contents- Part 1: Metallic materials	
EN ISO 11114- 2:2000	Transportable gas cylinders - Compatibility of cylinder and valve materials with gas contents- Part 2: Non-metallic materials	
	MARKING	
EN 1089-1:1996	Gas cylinder identification Part 1: Stampmarking	
	VALVES	
EN 849:1996 (except Annex A) /A2 :2001)	Cylinder valves: Specifications and type testing (modification of reference adopted at JM Sep. 2001)	

Standards to refer to in future editions when published:

WI n°	Doc ref	Title of document	Status	
	CYLINDERS			
23006	prEN 13293		Document available for comment	
23008	prEN 13322-1	Transportable gas cylinders - Refillable welded steel gas cylinders - Design and construction - Part 1: Welded steel	Document available for comment	

23009	prEN 13322-2	Transportable gas cylinders - Refillable welded stainless steel gas cylinders - Design and construction - Part 1: Welded stainless steel	Document available for comment
[23013	EN 12245:2002	Transportable gas cylinders - Fully wrapped composite cylinders	submitted to JM Sep. 2000 in Inf.Doc.8; submitted for adoption at JM Mar.2002]
[23014	EN 12205:2001	Transportable gas cylinders - Non refillable metallic gas cylinders	; submitted to JM Sep.99 by Inf. Doc. 7; submitted for adoption at JM Mar.2002]
[23050	EN 12257:2002	Transportable gas cylinders - Seamless, hoop wrapped composite cylinders -Specification	submitted to JM Sep. 2000 in Inf.Doc.8; submitted for adoption at JM Mar.2002]
[23053	EN 1964-2:2001	Transportable gas cylinders - Specification for the design and construction of refillable transportable seamless steel gas cylinders of capacity from 0.5 litre up to 150 litre - Part 2: Tensile strength (Rm max) > 1100 N/mm²	submitted to JM at Sep. 2001 meeting; submitted for adoption at JM Mar.2002]
23086	EN 1975:1999/prA1	Transportable gas cylinders - Specification for the design and construction of refillable transportable seamless aluminium alloy gas cylinders of capacity from 0.5 litre up to 150 litre	Document available for comment
[286002	EN 12807:2001	Transportable refillable brazed steel cylinders for liquefied petroleum gas (LPG) - Design and construction	submitted to JM Sep.2000 in Inf.Doc.8; submitted for adoption at JM Mar.2002]
286037	prEN 13110	Transportable refillable welded aluminium cylinders for liquefied petroleum gas (LPG) - Design and construction	Document at formal vote
286056	prEN 14140	Transportable refillable welded steel cylinders for liquefied petroleum gas (LPG) - Alternative design and construction	Document available for comment
286057		Transportable refillable composite cylinders for LPG - design and construction	No document ready for comment
	•	PRESSURE DRUMS	•
23054	PrEN14208	Welded steel drums: cap < 1000l	Document available for comment
		BUNDLES OF CYLINDERS	
23069	prEN 13769	Transportable gas cylinders - Cylinder bundles -Design, manufacture, identification and testing	Document available for comment
		VALVES	
286009	EN 13152:2001	Specifications and testing for liquefied petroleum gas (LPG) - cylinder valves-self closing	Issued for CEN formal approval; submitted to JM at May 2001 meeting in Inf.8; J; submitted for adoption at JM Mar.2002
286010	EN 13153:2001	Specifications and testing for liquefied petroleum gas (LPG) - cylinder valves-manually operated	Issued for CEN formal approval; submitted to JM at May 2001 meeting in Inf. 8; J; submitted for adoption at JM Mar.2002
		PERIODIC INDPECTION	
[23040	EN 1968:2002	Transportable gas cylinders - Periodic inspection and testing of seamless steel gas cylinders (excluding LPG)	;submitted for comments to JM at Sep. 2001 meeting]; submitted for adoption at JM Mar.2002
[23052	EN ISO 11623:2002	Transportable gas cylinders - Periodic inspection and testing of composite gas cylinders	submitted to JM Sep. 2000 in Inf.Doc.8];]; submitted for adoption at JM Mar.2002
23057	prEN 12863	Transportable gas cylinders - Periodic inspection and maintenance of dissolved acetylene cylinders	Document at formal vote
[23064	EN 1802:2002	Transportable gas cylinders - Periodic inspection and testing of seamless aluminium gas cylinders	submitted for comments to JM at Sep. 2001 meeting];

			submitted for adoption at JM Mar.2002]
23065	EN 1803:2002	Transportable gas cylinders - Periodic inspection and testing of welded steel gas cylinders (excluding LPG)	to be submitted to JM at Mar. 2002 meeting
286032		•	No document ready for comment

"Supporting" standards (see note on top of document)

Doc ref	Title of document
EN ISO 13340:2001	Transportable gas cylinders - Cylinder valves for non-refillable cylinders - Specifications and type testing
Tech. Report	Transportable gas cylinders - High porosity porous masses for acetylene cylinders
WI 23084	Transportable gas cylinders - Gas cylinder valves - Inspection and maintenance
WI 23030	Gas cylinders - Safety devices to protect the cylinder against over-pressurisation - Specification and testing (bursting discs, relief valves, fusible plugs,)
EN ISO 11114-3: 1997	Transportable gas cylinders - Compatibility of cylinder and valve materials with gas contents- Part 3: Autogenous ignition test in oxygen atmosphere
PrEN 13953	Pressure relief valves for LPG cylinders

Published standards referred to in 2001 edition in 6.2.4:			
Doc ref	Doc ref Title of document		
	AEROSOLS		
Annex to the Coun	cil Directive 75/324/EEC as amended by Commission Directive 94/1/EC		
	GAS CARTRIDGES		
EN 417:1992 Non-refillable metallic gas cartridges for liquefied petroleum gases, with or without a valv for use with portable appliances - Construction, inspection, testing and marking			

Standards t	Standards to refer to in future editions when published:				
WI n°	Doc ref	Title of document	Status		
	GAS CARTRIDGES				
	prEN417:1992 rev 2002	Non-refillable metallic gas cartridges for liquefied petroleum gases, with or without a valve, for use with portable appliances - Construction, inspection, testing and marking	Document at formal vote, presented at JM March 2002		

6.3 Requirements for the construction and testing of packagings for Class 6.2 substances

Standards to refer to:

no reference to CEN standard foreseen

6.5 Requirements for the construction and testing of intermediate bulk containers (IBC's),

Standards to refer to:

WI n°	Doc ref	Title of document	Status
261206	prEN ISO 16467	Packaging - Transport packages for dangerous goods -Test methods for IBCs	document available for comment
261232		Packaging - Transport packages for dangerous goods - Quality assurance programmes for the manufacture and testing of packaging and IBCs	No document ready for comment
261xxx		Packaging - Transport packages for dangerous goods - Recycled plastics material	No document ready for comment

6.8 Requirements for the construction and testing of fixed tanks (tank-vehicles), demountable tanks, battery-vehicles and RID/ADR tank-containers

Standards referred to:

ISO R 148

Standards to refer to in 6.8.2			
WI n°	Doc ref	Title of document	Status

		GENERIC TANKS	
296002	prEN 13094	Tanks for the transport of dangerous goods - Non-pressure	Document available for
		metallic tanks - Design and construction	comment
296003	prEN 14025	Tanks for transport of dangerous goods -P >50 kPa - design and	Document available for
		construction	comment
296008	prEN 13314	Tanks for transport of dangerous goods - Service equipment -	Document ready for forma
		Fill hole cover	vote; submitted to JM Mar
			2002
296011	prEN 13308	Tanks for transport of dangerous goods - Service equipment -	Document ready for forma
		Non pressure balanced footvalve	vote; submitted to JM Mar
			2002
296018	EN 12972:2001	Tanks for transport of dangerous goods - Testing,	adopted at JM May 2001
		inspection and marking of metallic tanks.	for 2003 edition
	D)		
296020	prEN 13316	Tanks for transporting dangerous goods - Service equipment -	Document ready for forma
		Pressure balanced footvalve	vote; submitted to JM Mar
			2002
296024		Tanks for transport of dangerous goods - Tank equipment for	No document ready for
		the transport of liquid chemicals - Foot valve	comment
296025		Tanks for transport of dangerous goods - Tank equipment for	No document ready for
		the transport of liquid chemicals - Hinged manholes, collars and	comment
		fixing	
296027	prEN 13317	Tanks for transporting dangerous goods - Service equipment -	Document ready for forma
		Manhole cover assembly	vote; submitted to JM Mar
		I DO MANIZO	2002
1207007	EN 12 102 2001	LPG TANKS	I to I Whish
[286007	EN 12493:2001	Design and manufacture of welded steel tanks for LPG road	submitted to WP15 Nov
		tankers.	2000]
286008		Design and manufacture of welded steel tanks for LPG rail	No document ready for
		tankers.	comment
[286021	EN 12252:2000	Equipping of LPG road tankers	Document published;
			submitted to WP15
			Nov2000]
		CRYOGENIC TANKS	_
268022		Large transportable non-vacuum insulated vessels -Part 2:	No document ready for
		Design, fabrication, inspection and testing	comment
268025	prEN 13530-2	Cryogenic vessels - Large transportable vacuum insulated vessels	Document at final vote;
		- Part 2: Design, fabrication, inspection and testing	submitted to WP15
			Nov.2001

Standards	Standards to refer to in 6.8.3				
WI n°	Doc ref	Title of document	Status		
23070	prEN 13807	Cylinder battery trailers -design, manufacture, identification and	document available for		
		testing	comment		

Standards	Standards to refer to in 6.8.5:				
WI n°	Doc ref	Title of document	Status		
	EN 1252-1: 1998	Cryogenic vessels - Materials - Part 1: Toughness requirements for temperature below -80°C	In 2001 edition in 6.2.2; moved to 6.8.5 for 2003 edition		
	EN 1252-2:2001	Cryogenic vessels - Materials - Part 1: Toughness requirements for temperature between -80°C and -10°C	adopted at JM May 2001 for 2003 edition]		

Doc ref Title of document	
EN 12561-1:1998	Railway applications - Tank wagons - Part1: Marking of tank wagons for the carriage of dangerous goods
prEN 12561-2	Railway applications - Tank wagons - Part 2: Bottom emptying devices for liquid products including vapour return
prEN 12561-3	Railway applications - Tank wagons - Part 3: Bottom filling and emptying devices for gases liquefied under pressure
prEN 12561-4	Railway applications - Tank wagons - Part 4: Top devices for top emptying and filling of liquid products.

prEN 12561-5	Railway applications - Tank wagons - Part 5: Top devices for bottom emptying and top filling of liquid products.	
prEN 12561-6	Railway applications - Tank wagons - Part 6: Manholes .	
EN 13081:2001	Tanks for transport of dangerous goods - Service equipment for tanks - Vapour collection adaptor and vapour collection coupler	
EN 13082:2001	Tanks for transport of dangerous goods - Service equipment - Vapour transfer valve	
EN 13083:2001	Tanks for transport of dangerous goods - Service equipment - Adaptor for bottom loading and unloading	
prEN 13175	Specifications and testing for LPG tank valves and fittings	
296009	Tanks for transport of liquid dangerous goods - Tanks with vapour pressure not exceeding 110kPa at 50°C - Service equipment for tanks - Pressure and vacuum breather vent	
296010	Tanks for transport of liquid dangerous goods - Tanks with vapour pressure not exceeding 110kPa at 50°C - Service equipment for tanks - Emergency venting	
prEN 13315	Tanks for transport of dangerous goods - Service equipment - Gravity discharge coupler	
296022	Tanks for transport of dangerous goods - Tank equipment for the transport of liquid chemicals - Air inlet and discharge valve	
prEN 13530-1	Cryogenic vessels - Large transportable vacuum insulated vessels - Part 1: Fundamental requirements	
268003	Large transportable non-vacuum insulated vessels- part 1: Fundamental requirements	
prEN 13530-3	Cryogenic vessels - Large transportable vacuum insulated vessels - Part 3: Operational requirements	
268004	Large transportable non-vacuum insulated vessels -Part 3: Operational requirements	
prEN 13648-1	Cryogenic vessels - Safety devices for protection against excessive pressure - Part 1: Safety valves for cryogenic services	
prEN 13648-2	Cryogenic vessels - Safety devices for protection against excessive pressure - Part 2: Bursting discs for cryogenic services	
prEN 13648-3	Cryogenic vessels - Safety devices for protection against excessive pressure - Part 3: Determination of required discharge capacity and sizing for relief devices	
EN 1626:1999	Cryogenic vessels- valves for cryogenic service	
EN 12300:1998	Cryogenic vessels - Cleanliness for cryogenic service	
EN 12434: 2000	Cryogenic vessels - Cryogenic flexible hoses	
prEN 13799	Contents gauge for LPG tanks	
prEN 14071	Pressure relief valves for LPG tanks - Ancillary equipment	
286024	Inspection and testing of LPG road tankers	
286028	Requalification procedures for LPG rail tankers	
PrEN 16421	Pressure relief valves for LPG tanks	

Part 7 Provisions concerning the conditions of carriage, loading, unloading and handling

7.5.1 Handling and stowage

"Supporting" standards (see note on top of document)	
	Securing of cargo on road vehicles – lashing points on commercial vehicles for goods transportation – Minimum requirements and testing
prEN 12642	Securing of cargo on road vehicles - Body structure of commercial vehicles- Minimum requirements