

Guidelines related to the Pressure Equipment Directive 2014/68/EU (PED)

In order to ensure a coherent application of the Pressure Equipment Directive 2014/68/EU (replacing the Directive 97/23/EC (PED) as of 19 July 2016), Guidelines are developed and agreed by the Commission's Working Group "Pressure" (WGP).

This working group is composed of representatives of Member States, European federations, the Notified Bodies Forum and CEN and chaired by a representative of the Commission services.

The PED Guidelines developed for Directive 97/23/EC will systematically be reviewed and possibly issued as a PED Guideline under the new Directive 2014/68/EU. Also new Guidelines may be issued to support the implementation of the Directive. This work is in progress and the new or updated Guidelines will be made available as soon as they are endorsed by the Working Group "Pressure" (WGP).

Remarks or questions concerning this document should be addressed via the email to the unit in the European Commission dealing with the Pressure Equipment Directive:

GROW-PRESSURE-EQUIPMENT@ec.europa.eu

Status of the guidelines

The PED Guidelines are not a legally binding interpretation of the Directive. The legally binding text remains that of the Directive. However, the PED Guidelines represent a reference for ensuring consistent application of the Directive. They represent, unless indicated differently in the respective guideline text, the unanimous opinion of the Member States.

Classification of the guidelines

The guidelines carry a x/yy type identification

- (x) relates to the subject (A, B, C etc...),
- the second (yy) is a sequential numbering.

Remark: To facilitate the transition to the new Guidelines the sequential number is maintained as far as possible (e.g. Guideline A-24 under the new PED 2014/68/EU corresponds to Guideline 1-24 under PED 97/23/EC)

The letter x refers to one of the following subjects:

- A. SCOPE AND EXCLUSIONS OF THE DIRECTIVE
- B. CLASSIFICATION AND CATEGORIES
- C. ASSEMBLIES
- D. EVALUATION ASSESSMENT PROCEDURES
- E. INTERPRETATION OF THE ESSENTIAL SAFETY REQUIREMENTS ON DESIGN
- F. INTERPRETATION OF THE ESSENTIAL SAFETY REQUIREMENTS ON MANUFACTURING
- G. INTERPRETATION OF THE ESSENTIAL SAFETY REQUIREMENTS ON MATERIALS
- H. INTERPRETATION OF OTHER ESSENTIAL SAFETY REQUIREMENTS
- I. MISCELLANEOUS
- J. GENERAL-HORIZONTAL QUESTIONS

Document history		
Version	Date	Comment
1.0	31/3/2015	Includes PED 2014-68-EU Guidelines from the WGP meeting of 11/03/2015

A. SCOPE AND EXCLUSIONS OF THE DIRECTIVE

Guideline A-24

Guideline related to: Article 2, point (12)

Question	<p>According to the definition of Article 2 point 12 fluids may contain a suspension of solids.</p> <p>Is a system of solid pieces or liquid drops distributed in a gas still a fluid in the sense of the PED?</p>
Answer	Yes
Reason	
Note 1	A gas containing pieces of solids or drops of liquid is also to be considered a fluid.

Keywords	fluid, suspension
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Accepted by Working Group Pressure (WGP) on:	11/03/2015

Guideline related to: Article 1 paragraph 2(s)

Question	How to understand the exclusion in PED Article 1 paragraph 2 (s) related to equipment covered by the regulations on transport of dangerous goods?
Answer	<p>This exclusion shall be read in the context of the scope of PED which applies to the design, manufacture and conformity assessment of pressure equipment.</p> <p>The exclusion only applies when the listed regulations on transport of dangerous goods includes construction and conformity assessment requirements for the equipment concerned.</p>
Reason	
Note	In the context of the listed regulations on transport of dangerous goods, the term construction traditionally refers to design and manufacture.

Keywords	
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B. CLASSIFICATION AND CATEGORIES

Guideline B-21

Guideline related to: Annex I sections 2.2.1 and 2.3, Annex II Table 1 Annex II Table 6

Question	How does one define an unstable gas as referred to in Tables 1 & 6 of Annex II of PED?
Answer	<p>An unstable gas in this context is a gas liable to transform itself spontaneously, producing a sudden pressure increase.</p> <p>Such transformation as an example can result from a relatively small variation of an operating parameter (e.g. pressure, temperature, presence of catalysing material) in a confined volume.</p> <p>This includes gases that are classified as chemically unstable gases according to CLP Regulation (EC) No 1272/2008 as amended.</p> <p>Typical examples of unstable gases: acetylene (UN 1001), methyl acetylene (UN 1060), vinylfluoride (UN 1860), ozone and dinitrogen oxide (UN 1067). For further examples, see Table 35.1 of the UN Manual of Tests and Criteria.</p>
Note	

Keywords	Unstable gas
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Accepted by Working Group Pressure (WGP) on:	11/03/2015

Guideline B-41

Guideline related to: Article 13

Question	Where to find additional information on classification of fluids based on PED Article 13 as of 1 June 2015?			
Answer	As of 1 June 2015 classification of fluids is based on article 13 of PED 2014/68/EU. Article 13 paragraph 1 (a) lists the physical and health hazard classes and categories for substances and mixtures included in Group 1. The classification is based on the CLP Regulation (EC) No 1272/2008. The table below provides an overview of the hazard classes and categories and the corresponding hazard statements according the CLP Regulation including references to the criteria and label elements in the CLP Regulation.			
CLP hazard classes and categories (as listed in article 13 of PED)	Criteria according to Annex I to CLP	Hazard statement according to CLP	Label elements according to Annex I to CLP	
(i) unstable explosives or explosives of Divisions 1.1, 1.2, 1.3, 1.4 and 1.5;	Section 2.1.2	H200, H201, H202, H203, H204, H205	Table 2.1.2	
(ii) flammable gases, category 1 and 2;	Section 2.2.2	H220, H221	Table 2.2.3	
(iii) oxidising gases, category 1;	Section 2.4.2	H270	Table 2.4.2	
(iv) flammable liquids, category 1 and 2;	Section 2.6.2	H224, H225	Table 2.6.2	
(v) flammable liquids, category 3 where the maximum allowable temperature is above the flashpoint;	Section 2.6.2	H226	Table 2.6.2	
(vi) flammable solids, category 1 and 2;	Section 2.7.2	H228	Table 2.7.2	
(vii) self-reactive substances and mixtures, type A to F;	Section 2.8.2	H240, H241, H242	Table 2.8.1	
(viii) pyrophoric liquids, category 1;	Section 2.9.2	H250	Table 2.9.2	
(ix) pyrophoric solids, category 1;	Section 2.10.2	H250	Table 2.10.2	
(x) substances and mixtures which in contact with water emit flammable gases, category 1,2 and 3;	Section 2.12.2	H260, H261	Table 2.12.2	

(xi) oxidising liquids, category 1, 2 and 3;	Section 2.13.2	H271, H272	Table 2.13.2
(xii) oxidising solids, category 1, 2 and 3;	Section 2.14.2	H271, H272	Table 2.14.2
(xiii) organic peroxides types A to F;	Section 2.15.2	H240, H241, H242	Table 2.15.1
(xiv) acute oral toxicity, category 1 and 2;	Table 3.1.1	H300	Table 3.1.3
(xv) acute dermal toxicity, category 1 and 2;	Table 3.1.1	H310	Table 3.1.3
(xvi) acute inhalation toxicity, category 1, 2 and 3;	Table 3.1.1	H330, H331	Table 3.1.3
(xvii) specific target organ toxicity – single exposure, category 1.	Table 3.8.1	H370	Table 3.8.4
Note 1	<p>Article 13 paragraph 1 (a) also states that "Group 1 comprises also substances and mixtures contained in pressure equipment with a maximum allowable temperature which exceeds the flash point of the fluid". The purpose of this provision is to ensure that the flammability hazard is properly addressed for those substances and mixtures which are not classified as flammable under the CLP Regulation (based on the temperature criteria of the CLP Regulation) but which are presenting this hazard due to the maximum allowable temperature (TS).</p> <p>For example, Heat transfer oils are not classified as flammable liquids according to the CLP Regulation because their flashpoint is above 60 °C (see CLP Regulation Annex I, Table 2.6.1 in Section 2.6 Flammable Liquids, 2.6.2 Classification criteria). However, if the maximum allowable temperature (TS) is above the flashpoint, the hazard of heat transfer oil corresponds to a Group 1 fluid.</p>		
Note 2	Please note that the CLP Regulation is subject to adaptations to technical progress and therefore the information in the table above should be checked with the version of the CLP Regulation in force at the time the equipment is placed on the market.		
Note 3	<p>For questions related to the CLP Regulation please consult your national CLP-helpdesks. Further information on the CLP Regulation can be found on the European Chemicals Agency (ECHA) website: www.echa.europa.eu. On the ECHA website there is also a list with the contact details of all national CLP-helpdesks.</p>		

Keywords	CLP Regulation, fluids, classification
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C. ASSEMBLIES

D. EVALUATION ASSESSMENT PROCEDURES

E. INTERPRETATION OF THE ESSENTIAL SAFETY REQUIREMENTS ON DESIGN

F. INTERPRETATION OF THE ESSENTIAL SAFETY REQUIREMENTS ON MANUFACTURING

G. INTERPRETATION OF THE ESSENTIAL SAFETY REQUIREMENTS ON MATERIALS

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