

# Transportable gas cylinders — Gas cylinder identification (excluding LPG) —

## Part 2: Precautionary labels

The European Standard EN 1089-2:2002 has the status of a  
British Standard

ICS 13.300; 23.020.30

## National foreword

This British Standard is the official English language version of EN 1089-2:2002. It supersedes BS EN 1089-2:1997 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee PVE/3, Gas containers, to Subcommittee PVE/3/7, Gas cylinder (receptacle) operations, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

### Cross-references

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This British Standard, having been prepared under the direction of the Engineering Sector Policy and Strategy Committee, was published under the authority of the Standards Policy and Strategy Committee on 19 September 2002

### Summary of pages

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## Transportable gas cylinders - Gas cylinder identification (excluding LPG) - Part 2: Precautionary labels

Bouteilles à gaz transportables - Identification de la  
bouteille à gaz (à l'exclusion du GPL) - Partie 2: Etiquettes  
informatives

Ortsbewegliche Gasflaschen - Gasflaschen-  
Kennzeichnung (ausgenommen Flüssiggas LPG) - Teil 2:  
Gefahrzettel

This European Standard was approved by CEN on 29 April 2002.

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**Management Centre: rue de Stassart, 36 B-1050 Brussels**

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## Foreword

This document EN 1089-2:2002 has been prepared by Technical Committee CEN/TC 23 "Transportable gas cylinders", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2003, and conflicting national standards shall be withdrawn at the latest by February 2003.

This document supersedes EN 1089-2:1996.

This European Standard consists of three Parts, belonging to a series of standards specifying gas cylinder identification requirements:

Part 1: *Stampmarking*

Part 2: *Precautionary labels*

Part 3: *Colour coding*

Annex A is informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## Introduction

The purpose of using precautionary labels on gas cylinders is to facilitate the identification of each cylinder and its content and to warn of the principal hazards associated with the said contents. Such labels can also serve to give other essential information such as the name and chemical formula of the gas or gas mixture and supplementary instructions on precautionary measures.

## 1 Scope

This European Standard specifies the design, content, i.e. hazard symbols and text, and application of precautionary labels intended for use on the shoulders of individual gas cylinders containing single gases or gas mixtures or immediately below (maximum 50 mm from the rounded part).

Labels for bundles of cylinders and for LPG cylinders are not covered by this standard.

NOTE LPG are substances carried under the identification number 1965 "Hydrocarbon gas mixture, liquefied, N.O.S".

## 2 Design and content of precautionary labels

### 2.1 General

Precautionary labels shall be designed, attached and maintained so that they are clearly visible and legible for as long as the cylinders remain in the same gas service.

Precautionary labels shall consist of two components:

- a) a diamond-shaped part or parts, i.e. a primary hazard diamond and, in cases where two or three kinds of hazard require identification, one or two subsidiary hazard diamond(s);
- b) a panel.

Where two or three hazard diamonds are necessary, the subsidiary hazard diamond (s) shall be placed overlapped and to the right of the primary hazard diamond (see Figures 1 and 2). In all cases, the symbols of the hazard diamond(s) shall remain unobscured.

The diamonds and panels may be manufactured separately and assembled on the gas cylinder.

Figures 1 to 4 show examples of arrangements of the diamond(s) and panel, other arrangements of the diamond(s) are permissible, (e.g. it can be above or beneath the panel).

### 2.2 Size and shape

#### 2.2.1 Diamond

The size and shape of the diamonds are illustrated in Figures 1 to 4. Lengths "a" of the sides of the diamond are specified in Table 1. Other lengths may be used provided that the hazard symbol is well visible in relation to the size of the cylinder.

Each diamond shall cover at least one-tenth of the surface area of the label.

**Table 1 — Size of diamond**

Dimensions in millimetres

Cylinder outside diameter <i>D</i>	Length of side of diamond <i>a</i>
$D < 75$	$\geq 10$
$75 \leq D < 180$	$\geq 15$
$D \geq 180$	$\geq 25$

### 2.2.2 Panel

The size and shape of panels are optional (see Figures 1 to 4).

### 2.3 Materials

The labels shall be made of a material which is durable under foreseeable conditions of transportation, storage and use.

### 2.4 Colour

#### 2.4.1 Diamond

The background colour of the diamonds shall be in accordance with Table 2.

#### 2.4.2 Panel

The colour and/or the presentation for the panels shall be such that there is a contrast with the colour of the diamond.

### 2.5 Content

#### 2.5.1 Diamond

Each diamond shall have a line inside its edge, of the same colour as the symbol. The danger diamonds to be affixed are selected according to the requirements of the applicable transport regulations.

#### 2.5.2 Panel

The panel shall indicate the additional information required by the applicable legislation on the transport of dangerous goods and the legislation on the labelling of dangerous substances and preparations such as:

- the identification of the content;
- supplementary indications on the hazards of the content and precautions to be observed in the storage and use of the cylinder and its content (e.g. EC community R&S phrases);
- name and address of supplier;



— the filling mass for gases filled by weight if not mentioned elsewhere.

If the information required is too important to be contained on one label, an additional label may be affixed to the cylinder. In any case, the hazard diamond(s) and the identification of the content according to transport legislation shall appear on the same label to be affixed on the shoulder of the receptacle.

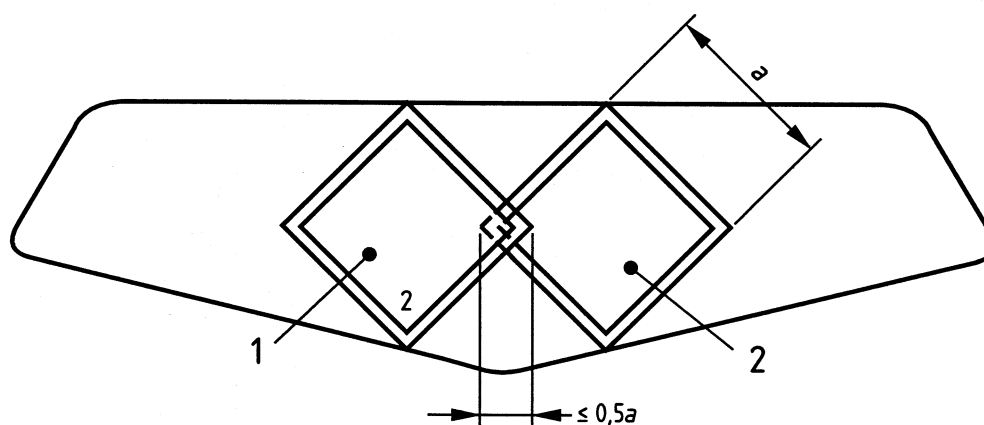
### 3 Application of precautionary labels

**3.1** The supplier shall ensure that the attaching, removal, or replacement of the label is performed in accordance with the cylinder content.

**3.2** The labels shall be firmly attached to the cylinder and shall be maintained in a legible condition.

**3.3** The label shall not cover any permanent markings necessary for filling. The preferred location is on the shoulder of the cylinder or immediately below (maximum 50 mm from the rounded part). If the dimensions permit, the label may be located on the cylinder neck ring. For small size cylinders (10 l and below), the labels may be affixed on the body of the cylinders.

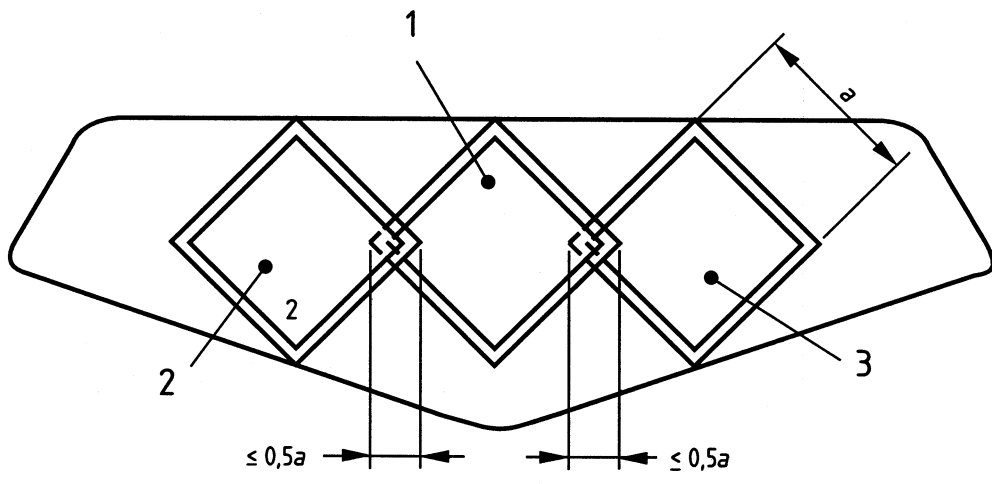
**3.4** Affixing new labels over old labels is permitted only if the information content of labels is identical. In all other cases the existing labels shall be removed completely.



#### Key

- 1 Primary hazard diamond
- 2 Subsidiary hazard diamond

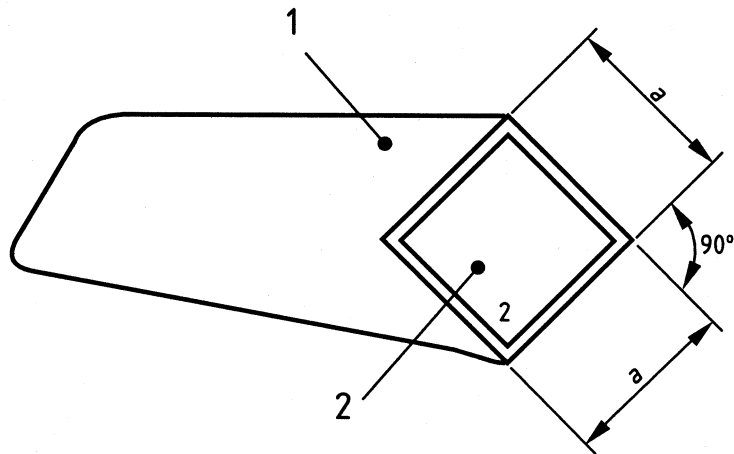
**Figure 1 — Primary and subsidiary risk diamond and panel**



**Key**

- 1 Primary hazard diamond
- 2 1<sup>st</sup> subsidiary hazard diamond
- 3 2<sup>nd</sup> subsidiary hazard diamond

**Figure 2 — Primary and two subsidiary risk diamonds and panels**



**Key**

- 1 Panel containing proper name and chemical formula of the gas, etc. Size and shape of the panel are optional
- 2 Diamond containing hazard symbol, the numeral 2 (indicating the UN class number) and hazards name (if applicable)

**Figure 3 — Primary risk diamond and panel**

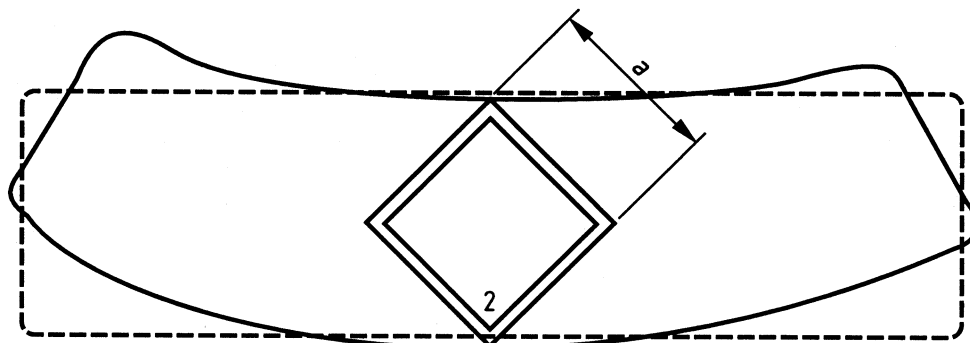







Figure 4 — Single diamond and curved or rectangular label

Table 2 — Risk diamond

Risk of gas or gas mixture	Risk diamonds	
	Background colour	Symbol and frame
Toxic	White	
Flammable	Red	
Corrosive	Upper half of diamond: White Lower half of diamond: Black	
Oxidizing	Yellow	
Gas under pressure (Non flammable - Non toxic)	Green	

## Annex A (informative)

### A–deviations

**A-deviation:** National deviation due to regulations, the alteration of which is for the time being outside the competence of the CEN/ CENELEC member.

This European Standard does not fall under any Directive of the EC. In the relevant CEN/ CENELEC countries these A-deviations are valid instead of the provisions of the European Standard until they have been removed.

In Switzerland, poisons are subject to the requirements of legislation. This specifies, amongst other things, that poisons may be classified in five classes and shall only be marketed with the corresponding identification. The identification specified in the legislation on poisons is considerably different to that specified in the requirements of EN 1089-2.

The following should be noted:

- a) Giftverordnung (Regulation on poisons) of 19 September 1983 SR 814.801 (In particular, clauses 44, 45 and 46);
- b) Verordnung über die besondere Kennzeichnung gewerblicher Gifte (Regulation on special identification of commercial poisons) of 10 January 1994 SR 814.842.21.

## Bibliography

ISO 448:1981, *Gas cylinders for industrial use — Marking for identification of content.*



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BSI  
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London  
W4 4AL