

SLOVENSKI STANDARD

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Nadomešča:

SIST EN 1089-3:1999

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Plinske jeklenke - Označevanje jeklenk (razen UNP) - 3. del: Barvno označevanje

Transportable gas cylinders - Gas cylinder identification (excluding LPG) - Part 3: Colour coding

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Ortsbewegliche Gasflaschen - Gasflaschen-Kennzeichnung (ausgenommen Flüssiggas LPG)- Teil 3: Farbcodierung

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Bouteilles a gaz transportables - Identification de la bouteille a gaz (GPL exclu) - Partie 3: Code couleur

Ta slovenski standard je istoveten z: EN 1089-3:2004

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1089-3

April 2004

ICS 01.070; 23.020.30

Supersedes EN 1089-3:1997

English version

**Transportable gas cylinders - Gas cylinder identification
(excluding LPG) - Part 3: Colour coding**

Bouteilles à gaz transportables - Identification de la
bouteille à gaz (GPL exclu) - Partie 3: Code couleur

Ortsbewegliche Gasflaschen - Gasflaschen-Kennzeichnung
(ausgenommen Flüssiggas LPG)- Teil 3: Farbcodierung

This European Standard was approved by CEN on 16 January 2004.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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EN 1089-3:2004 (E)

Contents	Page
Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Principles	5
4 Colour coding system	5
4.1 Gas properties.....	5
4.2 Specific gases	6
4.3 Mixtures of inert gases.....	7
4.4 Gas mixtures used for inhalation.....	7
5 Implementation.....	7
Annex A (normative) Colour references	8
Annex B (normative) Colour location.....	9
Annex C (normative) Letter "N"	11
Annex D (normative) Special national conditions	12
D.1 Special national conditions	12
D.2 Special national conditions for Austria, Germany, the Netherlands and Switzerland	12
Annex E (informative) A-deviations	13

<https://standards.iteh.ai/catalog/standards/sist/ad47af79-6414-424f-b063-ed679b4fbc1d/sist-en-1089-3-2004>

Foreword

This document (EN 1089-3:2004) 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 October 2004, and conflicting national standards shall be withdrawn at the latest by October 2004.

This document supersedes EN 1089-3:1997.

Annexes A to D are normative. Annex E 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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EN 1089-3:2004 (E)

Introduction

This European Standard is a three part standard, belonging to a series of standards specifying gas cylinder identification requirements:

Part 1: *Stampmarking*

Part 2: *Precautionary labels*

Part 3: *Colour coding*

Cylinder colours refer to the contents of cylinders and are used to complement cylinder labels which are the primary method of indicating cylinder contents.

Cylinder colours are an important method of contents identification when it is not possible to read labels, particularly when it is not possible to approach close to a cylinder.

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1 Scope

This European Standard specifies a colour coding system for the identification of the contents of industrial and medical gas cylinders with particular reference to the property of the gas or gas mixture.

This standard does not apply to cylinders containing liquefied petroleum gases (LPG) or to fire extinguishers.

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

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

ISO 32: 1977; *Gas cylinders for medical use -- Marking for identification of content*

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3 Principles

Colour coding is used primarily to identify the hazard associated with the contents of a cylinder.

In addition, to assist users, certain gases, particularly those used for medical purposes, have a specific identification colour consistent with ISO 32.

Identification colours shall be applied to cylinder shoulders. The cylinder body and valve protection device may be coloured for other purposes. However, the use of a colour for the cylinder body and the valve protection device which allows misinterpretation of the hazard should be avoided.

Colours used shall be in accordance with annex A.

4 Colour coding system

4.1 Gas properties

Unless specifically identified in 4.2.1 all gases and gas mixtures shall be identified by a colour classification indicating the property of the contents in accordance with the risk diamond on cylinder labels.

EN 1089-3:2004 (E)

Hazard labels (risk diamonds)	Colour code
— Toxic and/or corrosive	YELLOW;
— Flammable	RED;
— Oxidizing	LIGHT BLUE;
— Inert (non toxic, non corrosive, non flammable, non oxidizing)	BRIGHT GREEN.

The colour " BRIGHT GREEN" shall not be used for air for inhalation (e.g. breathing apparatus), see 4.4.

When a gas or mixture has two hazard properties then the cylinder shoulder shall be coloured in accordance with the primary hazard.

The colour of the secondary hazard can also be applied to the cylinder shoulder:

— Toxic (and/or corrosive) and flammable	YELLOW plus RED;
— Toxic (and/or corrosive) and oxidizing	YELLOW plus LIGHT BLUE.

When two colours are applied to the cylinder shoulder they should be in one of the formats (bands or quadrants) identified in annex B.

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4.2 Specific gases

4.2.1 The following gases shall be identified by specific colours rather than the colour system defined in 4.1.

a) Flammable gases:	SIST EN 1089-3:2004
— Acetylene	MAROON.
b) Oxidizing gases :	
— Oxygen	WHITE;
— Nitrous oxide	BLUE.

4.2.2 Additionally, inert gases for medical application shall be further differentiated by use of the following colours:

— Argon	DARK GREEN;
— Nitrogen	BLACK;
— Carbon dioxide	GREY;
— Helium	BROWN.

The colours may also be used for applications other than medical.

4.3 Mixtures of inert gases

When inert gases are mixed, combinations of the optional colours of the specific component gases, listed in 4.2.2, can be used to identify the cylinder contents (see annex B).

4.4 Gas mixtures used for inhalation

The following medical and breathing gas mixtures containing oxygen shall be identified using the colour of the components listed in 4.2:

— Air or synthetic air	WHITE plus BLACK;
— Oxygen / helium	WHITE plus BROWN;
— Oxygen / carbon dioxide	WHITE plus GREY;
— Oxygen / nitrous oxide	WHITE plus BLUE.

These colours shall not be used for industrial gas mixtures containing these components.

5 Implementation

Cylinders, colour coded in accordance with this standard, shall have the letter "N" marked twice on the shoulder of the cylinder. These markings shall be diametrically opposed, in a colour distinct from the colours of the cylinder shoulder. The size and shape of the letter "N" shall be as indicated in annex C.

In countries where the colour defined in this standard is the same as that already in use, it will only be necessary to apply the letter "N" to those cylinders which will leave that country to be transported in or through a CEN-Member country, where the colour specified in this standard is different from that currently used.

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The marking of the letter "N" is not necessary if there is no risk for misinterpretation using the new colour code, e.g. a colour was not used in the past or the new hazard is lower than the former one (see 4.1).