

**Transporditavad gaasiballoonid. Balloonide eristamine (välja arvatud vedelgaas). Osa 3: Värvide kodeerimine**

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

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1089-3:2011 sisaldab Euroopa standardi EN 1089-3:2011 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 29.07.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 20.07.2011.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 1089-3:2011 consists of the English text of the European standard EN 1089-3:2011.

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The standard is available from Estonian standardisation organisation.

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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 4 May 2011.

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## Foreword

This document (EN 1089-3:2011) 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of an identical text or by endorsement, at the latest by January 2012, and conflicting national standards shall be withdrawn at the latest by January 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1089-3:2004.

This document has been technically revised by the following:

- a) the white colouration of gas cylinder body dedicated for medical use;
- b) the new specific colour dedicated to nitric oxide/ nitrogen for medical use;
- c) the introduction of definitions (gas for medical use, breathing gas, industrial gas);
- d) the application of bright green colouration for inert gas mixtures  $N_2$  or He with  $O_2$  less than 20 % (exception for the two specific colours);
- e) the restriction of configuration of two colours on shoulder as quadrants to air (medical use or for breathing use);
- f) a guidance for the selection of shoulder with typical examples of assignment of colour.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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

## Introduction

The labelling of gas cylinders as required by the RID/ADR- Regulations is the primary method of indicating dangers of cylinder contents. However, colour coding is used to identify the contents of gas cylinders from a distance, e.g. in case of a fire. It is recognized that other systems are in use and may be used in conjunction with the requirements of this European Standard.

This European standard, along with EN ISO 13769, EN ISO 21007-1 and EN ISO 21007-2 belongs to a series of European Standards specifying gas cylinder identification requirements.

NOTE Labelling and marking of gas cylinders is subject to provisions of RID/ADR which take precedence over marking clauses in this standard.

## 1 Scope

This European Standard specifies a colour coding system for the secondary method of identification of the contents of gas cylinders for industrial gases, breathing gas application and gases for medical use with particular reference to the properties of the gas or gas mixture.

This European Standard does not apply to cylinders containing liquefied petroleum gas (LPG), to refrigerant gases, to portable fire extinguishers or stationary cylinder extinguishing. Bundle colour coding is not addressed by this or other standards.

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

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 10156, *Gases and gas mixtures — Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets (ISO 10156:2010)*

ISO 5145, *Cylinder valve outlets for gases and gas mixtures — Selection and dimensioning*

ISO 10298, *Determination of toxicity of a gas or gas mixture*

ISO 13338, *Determination of tissue corrosiveness of a gas or gas mixture*

European pharmacopoeia, monograph 1684

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **gas for medical use**

any gas or mixture of gases intended to be administered to patients for therapeutic, diagnostic or prophylactic purposes, with or without pharmacological action, or to be used for surgical tools, and it covers both medicinal and medical gases (see ISO 5145)

### 3.2

#### **inert gas**

non-toxic, non-corrosive, non-flammable and non-oxidizing gas or gas mixture

### 3.3

#### **synthetic air**

for medical use to refer to pharmacopoeia, monograph 1684, and for other use mixtures containing 20 % to 23,5 % oxygen in nitrogen to be considered

### 3.4

#### **industrial gas**

gas or gas mixtures not covered by 3.1 and not used for breathing gas use

### 3.5

#### **breathing gas**

gas filled in cylinders for breathing and diving application, excluding gas for medical use