



# SINGAPORE STANDARD Specification for identification of contents of industrial gas cylinders



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### SINGAPORE STANDARD

# Specification for identification of contents of industrial gas cylinders

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This Singapore Standard was approved by the Chemical Standards Committee on behalf of the Singapore Standards Council on 30 December 2016.

First endorsement, 1976 First revision, 2003 Second revision, 2016

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The Working Group, appointed by the Technical Committee on Chemistry to assist in the review of this standard, comprises the following experts who contributed in their *individual capacities*:

#### Name

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The organisations in which the experts of the Working Group are involved are:

Air Products Singapore Industrial Gases Pte Ltd Iwatani Corporation Singapore Pte Ltd Leeden National Oxygen Ltd Asia Industrial Gases Pte Ltd Linde Gas Singapore Pte Ltd Air Liquide Singapore Pte Ltd

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#### Foreword

This Singapore Standard was prepared by the Working Group appointed by the Technical Committee for Chemistry under the direction of the Chemical Standards Committee.

This standard is a revision of SS 152 : 2003.

The colour code on industrial gas cylinders was originally an adoption of BS 349 : 1973 – 'Specification for identification of the contents of industrial gas containers' which has since been withdrawn and replaced by BS EN 1089-3 Part 3, which is widely used in EU. Taking into consideration that the safety of end users is of paramount importance given the widespread use and acceptance of SS 152 in Singapore, the Working Group recommended the continued usage of SS 152 with changes to bring it up to date. The revision includes new sections on the colour coding system and gas cylinder label.

The primary means of identification of the contents of compressed gas cylinders is by reading of the cylinder labels. The use of a colour code to identify cylinder contents is the secondary means.

IMPORTANT – The colours represented in the electronic file of this SS can be neither viewed on screen nor printed as true representations. Although the printed copies of this SS have been produced to correspond (with an acceptable tolerance as judged by the naked eye) to the colour requirements, it is not intended that they be used for colour matching. Instead, it is recommended that reference be made to the colour codes identified in Table 1.

In preparing this standard, references were made to the following publications:

AIGA 017/05	Labelling of gas containers (including associated equipment)
BS 349:1973	Specification for identification of the contents of industrial gas containers
BS 381C:1996	Specification for colours for identification, coding and special purposes
BS EN 1089-3:2011	Transportable gas cylinders – Gas cylinder identification (excluding LPG) – Part 3: Colour coding
BS EN ISO 7225:2007+A1:2012	Gas cylinders – Precautionary labels
EIGA Document 169/16	Classification, and labelling guide
ISO 10286:2007	Gas cylinders – Terminology

Acknowledgement is made for the use of information from the above publications.

At the time of publication, this standard is expected to be used by manufacturers, purchasers and traders of industrial gas cylinders as well as relevant authorities.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

#### NOTE

- 1. Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.
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- 3. Compliance with a SS or TR does not exempt users from any legal obligations.

# Specification for identification of contents of industrial gas cylinders

#### 1 Scope

This Singapore Standard specifies requirements for identification of contents of gas cylinders by colour code. It also specifies gas cylinder hazard labelling and stamp marking requirements.

This Singapore Standard is used for gas cylinders refilled and used in Singapore and it is referred to by relevant authorities.

This Singapore Standard does not include gas cylinders for the following applications:

- Medical gases;
- LPG;
- Fire extinguishers;
- Food and beverage;
- Breathing apparatus.

Imported and exported compressed gas cylinders are not subjected to this standard. Imported gas cylinders will feature the colour code system used in its origin country. Users of imported cylinders can refer to international standards for cylinder colour code system or contact the gas suppliers.

#### 2 Normative references

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

- CP 12 Code of practice for the filling, inspection, testing and maintenance of containers for the storage and transport of compressed gases
- SS 586 : Part 2 Specification for hazard communication for hazardous chemicals and dangerous goods Globally harmonised system of classification and labelling of chemicals Singapore's adaptations