

**CGA C-9—2019**

**STANDARD COLOR MARKING  
OF COMPRESSED GAS  
CONTAINERS FOR MEDICAL USE**

**SIXTH EDITION**

**CGA**  
Compressed Gas Association

*The Standard For Safety Since 1913*

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Work Item 18-016  
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NOTE—Technical changes from the previous edition are underlined.

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## 1 Introduction

Compressed gases for medical use are classified as drugs or medical devices by regulatory authorities and are supplied to hospitals and other institutions in containers that are delivered by various suppliers. Anesthetists, doctors, and trained technicians move from one institution to another and utilize the medical gases that are available at each institution. The user shall be responsible for preventing the accidental use of an unintended gas.

Although product labeling and CGA outlet connection identification are the primary and secondary means of identification, color is used as an additional aid for identifying the contents of compressed gas containers for medical use and for designating certain containers for use with specific medical gases. The primary means of identifying the contents of a compressed gas container is by its label, see CGA C-7, *Guide to Classification and Labeling of Compressed Gases* [1].<sup>1</sup> A secondary means of identification is the valve outlet, see CGA V-1, *Standard for Compressed Gas Cylinder Valve Outlet and Inlet Connections* [2]. This standard provides a uniform method of color marking that aids in the recognition of containers of compressed gases for medical use. Color is a tertiary means for medical gas cylinder content identification and shall never be solely relied upon for the purpose of medical gas identification.

In the United States, the color codes are specified in Title 21 of the U.S. Code of Federal Regulations (21 CFR) Part 201.328 "Labeling of Medical Gas Containers" [3].

## 2 Scope

This standard shall apply to all sizes of containers used with gases for medical use as listed in the U.S. Federal Food Drug and Cosmetic Act [4]. This standard also applies to these gases in Canada.

This standard does not apply to the following:

- containers for delivery to foreign countries or to United States military agencies that have established color marking standards that differ from this standard;
- containers used in hospitals or other medical institutions for purposes other than medical use;
- containers used in industrial applications;
- nonportable storage vessels;
- containers that are attached to and form a part of any over-the-highway vehicle;
- containers when the contents are classified as medical devices or to supplementary medical equipment used with these containers, for example, gases or gas mixtures specifically intended for use in calibrating medical equipment;
- containers that are filled from home fill oxygen concentrator systems; and
- containers that are filled from home fill liquid oxygen systems.

## 3 Definitions

For the purpose of this standard, the following definitions apply.

### 3.1 Publication terminology

#### 3.1.1 Shall

Indicates that the procedure is mandatory. It is used wherever the criterion for conformance to specific recommendations allows no deviation.

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<sup>1</sup> References are shown by bracketed numbers and are listed in order of appearance in the reference section.