

CGA C-7—2011

**GUIDE TO PREPARATION
OF PRECAUTIONARY
LABELING AND MARKING
OF COMPRESSED
GAS CONTAINERS**

NINTH EDITION



**COMPRESSED GAS ASSOCIATION, INC.
14501 George Carter Way, Suite 103
Chantilly, VA 20151
Phone: 703-788-2700
Fax: 703-961-1831
E-mail: cga@cganet.com**

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NOTE—Technical changes from the previous edition are underlined.

NOTE—Appendices A, B, C, and D (Normative) are requirements.

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ADDENDUM INFORMATION:**Guidance for Compliance with GHS Requirements**

This publication, CGA C-7 (9th edition), includes an addendum that provides guidance for compliance with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). The text of CGA C-7 (9th edition), as of the date of publication, reflects current U.S. regulatory requirements.

GHS was established by the United Nations (UN) to develop a means of hazard classification and communication via labels, pictograms, and consistent hazard language on a global basis. Internationally, competent authorities may adopt the GHS in whole or in part and may also require additional information on labels.

The Compressed Gas Association prepared this addendum to guide users on implementation practices in regions that have adopted GHS requirements. This addendum provides examples of gas labels and pictograms to meet GHS requirements, but does not address possible modifications or additional information that may be required by the regional competent authority. At this time, GHS requirements have not been adopted in the U.S. It is the reader's responsibility to be aware of regional regulations and implementation schedules. When the GHS system is fully implemented in the U.S., this addendum will replace CGA C-7, 9th edition.

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1 Introduction

The compressed gas industry has developed precautionary labels and markings for use on containers of compressed gases, cryogenic liquids, and other hazardous materials for the purpose of identifying the contents, warning of principal, physical, health, and environmental hazards, and providing appropriate precautionary information.

2 Scope

The Compressed Gas Association (CGA) has prepared this publication to state the general principles for labels and markings and gives recommended minimum requirements for many gases and other hazardous materials. Additional information may be shown by gas suppliers if desired. For other gases not presented in this publication, precautionary labels and markings may be prepared by incorporating the applicable portions contained herein.

The methods of preparing precautionary label and marking information established by the most current edition of ANSI Z129.1, *Hazardous Industrial Chemicals Precautionary Labeling*, have been followed in this guide but were modified as necessary to meet the specific labeling and marking needs of the compressed gas industry [1].¹

CGA has not prepared this publication to address all current state, province, territory, or local regulatory label and marking requirements, e.g., the "Proposition 65" warnings required by the state of California.

Precautionary labels and markings shall be applied to compressed gas and cryogenic liquid containers to identify the container contents and to warn of principal physical and health hazards associated with the container and its contents. Containers in transportation not exceeding 454 kg (1000 lb) water capacity require the U.S. Department of Transportation (DOT) and Transport Canada (TC) hazard label.

Precautionary labels and markings as given herein with regard to cylinder handling and storage information may be modified with respect to format so it can be applied as required to fixed storage vessels, portable tanks, tube trailers, cargo tanks, or other packaging.

Precautionary labels and markings shown in this publication are examples of labels and markings that warn of principal physical and health hazards involved in the handling and use of these specific products. The words label or labeling as used in this publication include labels, markings, decals, tags, stenciling, and similar methods of presenting precautionary information.

Appendix A illustrates the basic marking consisting of DOT or TC proper shipping name; identification number; and 30-mm (1.25-in) diamond, which is permitted under conditions authorized by DOT and TC regulations as an alternative to the DOT/TC 100-mm (3.9-in) diamond label and marking [2, 3].

Appendix B provides additional labeling and marking information to aid in complying with applicable regulations of the U.S. Food and Drug Administration (FDA) for the labeling of medical gases classified as drugs.

Appendix C provides additional labeling and marking information to aid in complying with applicable regulations of FDA for the labeling and marking of medical gases classified as medical devices.

3 Responsibility

It is the responsibility of the gas supplier to ensure that the precautionary labels and markings adequately warn of physical, health, and environmental hazards, provide appropriate precautionary measures, and comply with applicable governmental regulations. These regulations include requirements of FDA, DOT, U.S. Environmental Protection Agency (EPA), and Occupational Safety and Health Administration (OSHA) and, in Canada, TC and Health Products and Food Branch Inspectorate (HPFBI).

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