



PS-2—2022

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POSITION STATEMENT

ESTABLISHING AN INDUSTRY STANDARD COLOR CODE FOR COMPRESSED GAS CYLINDERS

Question

Should a uniform, industrywide color standard be established to identify the gas contained in a cylinder by the color of the cylinder?

Answer

The Compressed Gas Association, Inc. (CGA) does not recommend a uniform color code for identifying industrial cylinder contents. Color is used as an aid for identifying the contents of compressed gas containers for medical use. Color marking, however, shall not be used as the primary means for identification of contents.

When used as a tertiary means, medical gas producers and users shall follow CGA C-9, *Standard Color Marking of Compressed Gas Containers for Medical Use* [1].

Reasons

1. There are more than 100 different gases being commercially transported in this country today. There are seven primary colors plus black and white, which provides a total of nine colors; however, there are more than 100 commodities to identify. The only way to use colors would be to use some program of striping or segmental painting of packages using different colors and different shades of the same color. If this is done, the color code becomes another form of communication or language that is only understandable to someone trained in that color code.
2. There are a sizable number of users who either are partially or completely color blind.
3. Cylinders often are exposed to different conditions that can have an effect on the color of paint.
4. The appearance of a single color can often change substantially if it is moved from daylight to various types of industrial lighting.
5. Cylinders can be subject to considerable abuse, and frequently the paint on their surface can be largely worn off making identification of the original color difficult.
6. Labels, placards, and/or markings already provide identification of each gas by means of color, symbol, and text. A contrasting background color and/or border are ways to help identify the product and are required by the U.S. Department of Transportation in Title 49 of the U.S. Code of Federal Regulations and Transport Canada's Transportation of Dangerous Goods Regulations [2, 3]. For additional information regarding CGA's marking system for compressed gas cylinders, see CGA C-7, Guide to Classification and Labeling of Compressed Gases [4].
7. Color coding does not improve the means of identifying the contents of compressed gas packages.
8. Many cylinders are currently color coded for identification of ownership in a variety of ways.
9. Use of color coding encourages users to rely on cylinder color rather than reading the label for correct identification.

Summary

It has long been and continues to be CGA's position that the best means to identify the content of any gas cylinder, either industrial or medical, is by some form of the printed word. This is why CGA recommends the use of product labels or tags affixed to the shoulders and/or sidewalls of compressed gas cylinders at the time of filling to indicate their contents. The U.S. Occupational Safety and Health Administration (OSHA) and Canadian Workplace Hazardous Materials Information System (WHMIS) require all cylinders containing gases to bear a proper product label. The U.S. Food and Drug Administration (FDA) and Health Canada provide additional labeling requirements for medical gases. Appropriate wording for labels is provided in CGA C-7 [4].

On September 30, 1976, the U.S. Department of Transportation (DOT), Materials Transportation Bureau (MTB) published an Advance Notice of Proposed Rulemaking in the *Federal Register* to establish a system of color coding of compressed gas packages.

On October 5, 1978, the DOT published a Termination of Docket in the *Federal Register* stating that after additional analysis and consideration of comments received, the MTB concluded that further consideration of color coding of compressed gas packages was not justified.

The staff conclusions of the MTB on the major economic and public safety issues state:

"A uniform, nationwide system of color coding compressed gas cylinders as a means of preventing serious cylinder accidents in the normal, routine environment characterizing the workplace or household is felt to be of little or marginal value as a safety measure, and the adoption of such a system may increase rather than decrease serious accidents involving such cylinders."

There were no comments received supporting the proposal. Joining CGA and several member companies in submitting negative comments were the American Trucking Association; the National Society for the Prevention of Blindness, Inc.; the Fire Equipment Manufacturers Association, Inc.; the State of Florida Fire Marshall's Office; the California Division of Industrial Safety; the Safety Department of the University of Wisconsin; and the Deputy Assistant Secretary of Labor.

Accordingly, CGA does not recommend a system of color coding compressed gas containers to identify the contents in the United States and Canada.

References

Unless otherwise specified, the latest edition shall apply.

[1] CGA C-9, *Standard Color Marking of Compressed Gas Containers for Medical Use*, Compressed Gas Association, Inc. www.cganet.com

[2] *Code of Federal Regulations*, Title 49 (Transportation) Parts 100-180, U.S. Government Printing Office. www.gpo.gov

[3] *Transportation of Dangerous Goods Regulations*, Transport Canada. www.tc.gc.ca

[4] CGA C-7, *Guide to Classification and Labeling of Compressed Gases*, Compressed Gas Association, Inc. www.cganet.com