

# ANSI Z535.4 – SAFETY LABELS IN FOCUS

By Erin Earley

In our latest “On Your Mark” columns, we’ve been putting a spotlight on the American National Standards Institute (ANSI) Z535 standards. This family of six U.S. standards was created to enhance safety communication and promote consistent hazard recognition and understanding – making it important for manufacturers and workplaces across the country. These standards create a guide for the design, application, and use of signs, colors, and symbols intended to identify and warn against hazards and for other accident prevention purposes. Our theme of exploring each of these standards individually continues, this month focusing on ANSI Z535.4 – Product Safety Signs and Labels.

## WHAT IS ANSI Z535.4?

ANSI Z535.4 is a standard developed by ANSI that relates specifically to product safety signs and labels. This standard – ANSI Z535.4 Product Safety Signs and Labels – provides guidelines and specifications for the design, use, and placement of safety signs and labels that are applied to products with the intention of conveying information about associated hazards.

It defines a “product safety sign or label” as a sign, label, cord tag, or decal affixed to a product that provides safety information about that product.

The standard outlines the main principles for creating effective safety signs and labels. That includes the use of symbols, colors, signal words, and other visual elements to communicate the severity of potential hazards and the actions that should be taken to avoid those hazards.

## THE STANDARDS ORIGIN – AND LATEST UPDATES

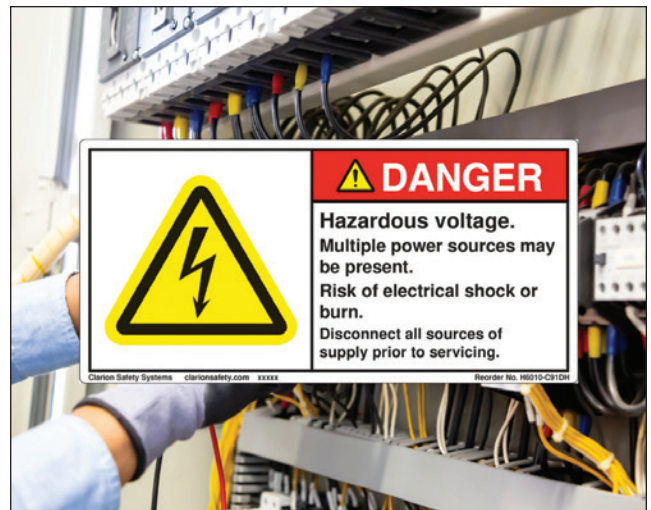
How did the standardization of warning signs come about? According to ANSI.org, in the early 1900s, concerns over rising traffic-related injuries and deaths resulted in the emergence of warning signs, followed by complex safety sign systems in Europe and the U.S. These continued to evolve through Europe and North America in the following years.

The development of the ANSI Z535 standards was part of a response to the growing need for standardized

safety communication to better protect people across different environments and industries. ANSI Z535.4 was published for the first time in 1992, providing its core guidelines for safety labels. It was revised in 1998 when Annex A was added to explain the use of safety label components in collateral material used with the product. Annex B was added to provide principles and guidelines for the design of product safety signs.

Following that, revisions were made periodically, according to ANSI’s cycle, including annexes to refer to ISO formats, signal word translations, and signal word selection assistance. In 2011, revisions were made to better harmonize with the .2, .5, and .6 standards; that year, a new type of product safety sign, the “safety instruction sign,” was added to the standard, joining the existing types of signs, hazard alerting signs, and safety notice signs which were also more clearly defined and named in that edition. In 2017, the prior 2011 version was reaffirmed or republished without changes.

As for the next steps, a revision to Z535.4 is expected to be published shortly, focusing on further clarification of its usage with other standards, as well as new text, definitions, and minor modifications to its wording.



An example of a best practice hazard alerting product safety label, designed in line with ANSI Z535.4

## USING THE STANDARDS' GUIDELINES TO CREATE EFFECTIVE SAFETY LABELS

ANSI Z535.4 specifies that a product safety sign or label is made up of a signal word panel (the area of the sign or label that contains the signal word to communicate the level of seriousness of the hazard, as well as the safety alert symbol if used on a hazard alerting sign or label), plus a message panel.

“Hazard alerting” refers to signs and labels directly related to a hazard that identifies the hazard, the level of hazard seriousness, the probable consequence of involvement with the hazard, and how the hazard can be avoided.

The message panel is the area of the safety sign or label that contains its word message. The word message, potentially along with a pictorial or safety symbol, is used to convey the nature of the hazard (such as its type: electric shock, cut, or burn), the consequence of interaction with the hazard, and how to avoid the hazard. A safety symbol panel can be used to communicate a part or all of the elements of a message panel.

The standard also lays out clear guidelines for the many specific aspects that need to be considered to create a safety label, including:

- Use of signal words
- Sign and label format
- Safety sign and label colors
- Letter style and size
- Sign and label placement
- Expected life and maintenance
- Safety symbols

In its introduction, ANSI Z535.4 notes that it “sets forth a system for presenting safety and accident prevention information through product safety signs and labels.

It consolidates a number of previous graphic approaches into a common design direction selected to present product hazard information in an orderly and visually consistent manner. The basic mission and fundamental purpose of the ANSI Z535 committee is to develop, refine, and promote a single, uniform graphic system used for presenting safety and accident prevention information.”

According to Angela Lambert, head of standards compliance at Clarion Safety Systems and an ANSI Z535 committee member, “While our goal absolutely is to offer tools to help individuals easily and efficiently create consistent signs and labels – in line with the development of a standardized, graphic system of signage which benefits comprehension and, overall, safety. However, putting this into practice is not without its challenges.”

Lambert notes that one complexity is that Z535.4 is not meant to be looked at as a standalone standard. It’s written as one part of the Z535 family; it’s designed to be used alongside the .1 (Safety Colors) and .3 (Criteria for Safety Symbols) standards, and it’s intended to complement the other standards in the Z535 series: .2 (Environmental and Facility Safety Signs), .5 (Safety Tags and Barricade Tapes for Temporary Hazards), and .6 (Product Safety Information in Product Manuals). When it comes to designing effective labels, it’s also important to understand ANSI Z535.4’s international counterpart, ISO 3864-2, may apply to the product or audience at hand and will need to be considered.

“While it may not always be a simple task to understand and apply the latest standards and best practices to your safety labels, the encouraging news is that, when it comes to safety, we’ve come so far by having these standardized tools and guidelines in place to use. And they’ll continue to be revised, reviewed, and republished to be more relevant and harmonized.” ©

Erin Earley, head of communications at Clarion Safety Systems, shares her company’s passion for safer products and workplaces. She’s written extensively about best practices for product safety labels and facility safety signs. Clarion is a member of the ANSI Z535 Committee for Safety Signs and Colors, the U.S. TAG to ISO/TC 145, and the U.S. TAG to ISO 45001. Erin can be reached at [earley@clarionsafety.com](mailto:earley@clarionsafety.com).

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