

SYMBOLS IN FOCUS

By Erin Earley

Symbol choices for your product safety labels can be complex – especially in light of the latest ISO standards update. This month, we look at some of the most pressing questions you may be facing.

With ISO 3864-2's latest update, symbols have become more of a focal point than ever for product manufacturers looking to improve their safety labeling. What style symbol should you use? How many symbols should be shown? What are so-called “supplementary symbols”? While there are many factors at play depending on your product, your audience and your market, in this article, we dive deep into symbols to help you better understand the choices for your system of safety labels.

WHY SYMBOLS MATTER TO YOUR PRODUCT SAFETY GOALS

Best practices dictate that safety labels should be included on products that have residual risk. Graphical symbols may be an optional component of your labels but, in many of today's regulations and standards, their use is highly encouraged. For those familiar with our “On Your Mark” column, you know that there are strong arguments to be made for the use of symbols to improve both your product's safety and your company's liability position in the event of an accident.

With your overall goal being to communicate safety information about residual risks efficiently and effectively, symbols are a significant factor. They can help to convey and reinforce the description of the hazard, as well as information on the consequence of interaction and how to avoid it. They make labels more noticeable, which human factors experts say is the chief requirement of a warning; after all, if a warning isn't noticed – and given an opportunity to be heeded – none of its other characteristics will matter. Symbols also have the ability to communicate label content across language barriers, which can be especially important in our global marketplace.

THE PRIMARY STANDARDS – AND ZEROING IN ON ISO 3864-2'S UPDATE

The choice of which standards-based safety label format and content options to use is determined by which best conveys your safety message to your intended audience. While there may be other considerations within your specific industry, the overarching consensus standards that define today's best practices in the field of visual safety communication are the ANSI Z535 standards in the U.S., and the ISO 3864 standards internationally.

In years past, manufacturers who export products have had difficulty choosing from conflicting ANSI and ISO product safety label standards. But due to the positive efforts of standards harmonization, ISO 3864-2 formats are acceptable for use in the U.S. and some ANSI Z535.4 formats are accepted internationally. When it comes specifically to symbol use, depending on whether you choose to follow the ANSI or ISO standards, you have the option to use labels with a word-message-only format, a symbol-only format, or a combination of symbols and text.

With that said, the use of symbols is essential to the ISO standards, and encouraged by ANSI. Per ANSI Z535.3, labels “with safety symbols can promote greater and more rapid communication of the safety message and therefore greater safety...” The ANSI Z535.4 standard also outlines specific considerations to address: “When deciding whether or not to use safety symbols to complement or replace words, factors to consider include the risk of critical confusion, the clarity and speed of communication, space availability, and translation and literacy issues.”

When it comes to symbol use in line with the ISO standards, you'll want to make sure to be familiar with the 2016 update to ISO 3864-2, which had significant changes to label format options, including symbol use.

ANSI Z535.3 states that a safety symbol may or may not use a surround shape – a geometric configuration around the image that conveys additional safety information. This contrasts with ISO. ISO safety symbols, the category of symbols used on your product safety labels, use a colored surround shape (a triangle, circle, or square) to define their overall safety function and to make these symbols more easily noticed and recognized. According to ISO, there are five types of safety symbols (the first three of which are of particular interest to product manufacturers) each with its own defined combination of color, contrast color and shape (see Figure 1):

- Warning: black-banded yellow triangle with black symbol
- Mandatory action: blue circle with white symbol
- Prohibition: black symbol behind red circle with slash
- Safety equipment location signs/safe condition: green rectangle with white symbol
- Fire equipment location: red rectangle with white symbol

When it comes to symbol use in line with the ISO standards, you'll want to make sure to be familiar with the 2016 update to ISO 3864-2, which had significant changes to label format options, including symbol use. According to the latest version of ISO 3864-2, product safety labels must use at least one ISO-formatted safety symbol, where the symbol is placed in the colored surround shape. Symbols without the surround shape can be used, but they're referred to as "supplemental symbols" and are in addition to one or more that use the surround shape. The 2016 update also added a new "wordless" format option, completely eliminating words. It uses what ISO calls a "hazard severity level panel" (another name for ANSI Z535 signal word panels) but no signal word. ANSI does not currently include this wordless format option, but allows its use by way of its section 3.1.1 which allows the use of ISO formats.

CONCLUDING THOUGHTS FOR YOUR SYMBOL CHOICES

A key takeaway from this symbol discussion is that there's not necessarily one correct choice to be made. See the examples in Figure 2 on the next page.

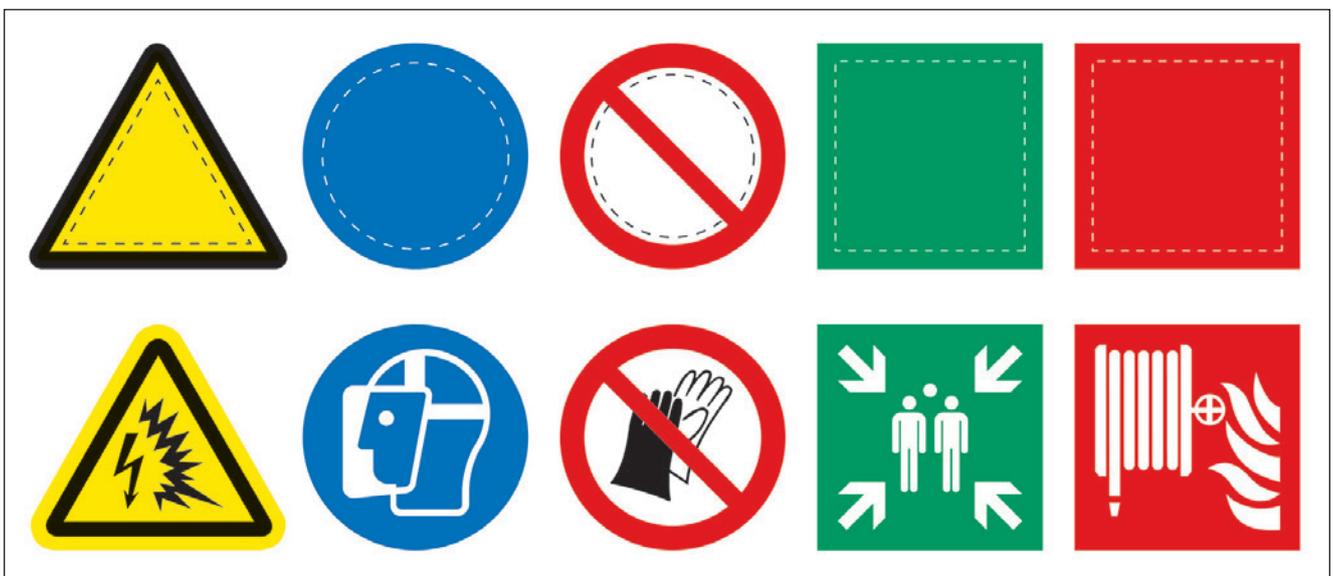


Figure 1: The ISO surround shapes for each of the five types of safety symbols (top row) and examples of ISO or ISO-formatted safety symbols (bottom row)

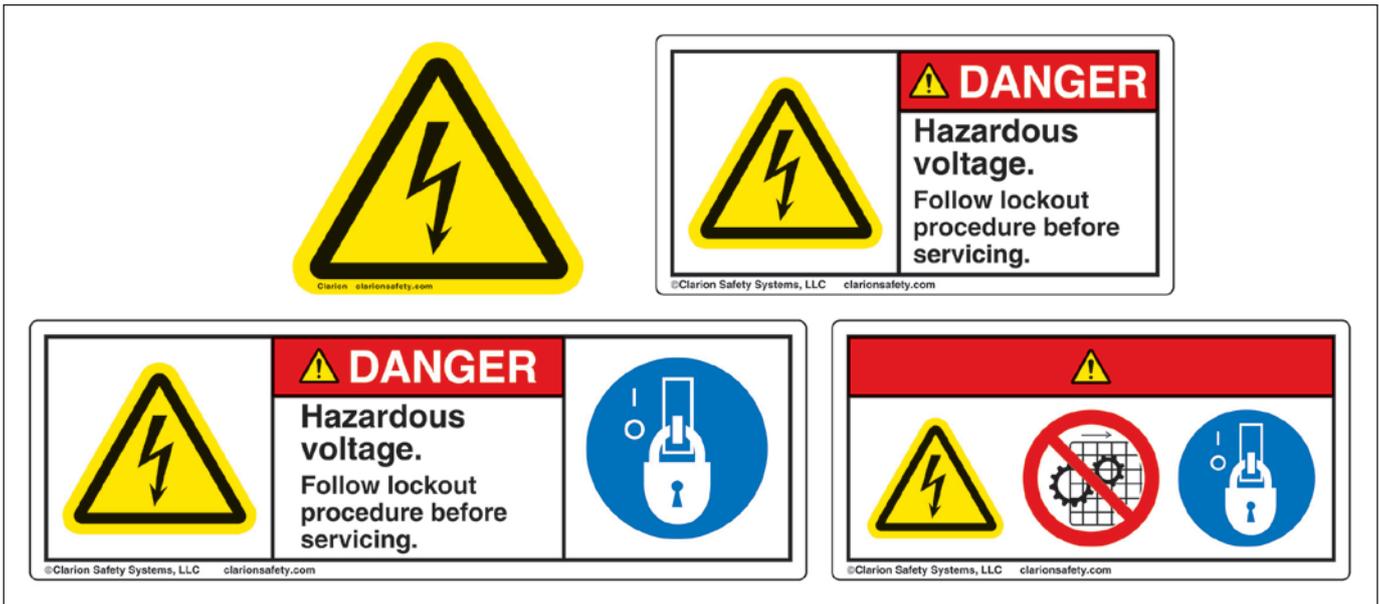


Figure 2: Examples of a few of the many best practice options for product safety label symbols and formats allowed by the ANSI and ISO standards

You need to look at your options – the benefits and considerations of each – to see what fits the needs at hand in order to create the best warning possible for your product. Some of the main building block considerations to help guide you are:

- Know the latest ANSI and ISO standards well, and which applies best to your products, audience and market.
- Symbol use is optimal. While product space limitations may be an obstacle, especially depending on your label format choice, multiple symbols can be beneficial to reinforce each other and convey more complete hazard-related information.
- Know what constitutes “best practices” for the symbols that match up with your safety messages. When it comes to most effectively increasing safety and reducing your business risk, the symbols you use should come from the most up-to-date standards or be drawn using ISO standards-based illustration techniques. Ideally, use standardized symbols, like those in ISO 7010.
- Use of an ISO-formatted surround shape around a safety symbol may be considered. If your goal is to comply with the ISO standards, it’s a necessary component. If your goal is to comply with the ANSI standards, there may be reasons not to include the surround shape, such as if space or legibility is an issue (symbols can be reproduced larger without the surround shape).
- Text can assist in training on the symbol’s meaning and elaborate on the message being conveyed in your label. However, there may be instances when wordless formats are a good alternative, such as when warning in multiple languages are an issue.

At the same time as you’re evaluating your labels, be sure to consider them the way they’re referred to at the start of this article: as a system. They’re not just single entities, and looking at them that way could jeopardize your product’s safety. Stay tuned for more on that – the opportunity to see labels as an element of your overarching product safety and compliance program – to come in a future article in this series. ©

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.