

2009

## The Basics of Signage



“The nature of signage is, at the most basic level, designed to let these employees know the nature of the danger and what they need to do to avoid injury”

Rob Vajko

1/12/2009

# The Basics of Signage

---

In the best of all possible worlds, there are no hazards to warn against. In the real world, however, there are numerous dangers and possible hazards that employees need to pay attention to. The nature of signage is, at the most basic level, designed to let these employees know the nature of the danger and what they need to do to avoid injury. Effective signage will identify and label every and all possible hazards the workers need to protect against.

Proper signage should be designed to help the employee identify even at a quick glance, the nature and emergency of the hazard. Not all signs are signs that need to be read immediately. The nature of the hazard may not be one that is urgent. The person looking at the sign needs to be able to see immediately which signs are urgent and what the nature of the urgency is.

There are various ways that signs have tried to help resolve this problem. Colors, Wording, Symbols and the size of the font or symbol used are usually used in various combinations to help identify the hazards.

## Colors

There are 5 basic colors that are used, usually in conjunction with some key words of warning.

**RED** is used to identify dangers that are immediate and hazards that have the potential for serious injury or death. This color is usually used with **DANGER**, **FIRE** or **STOP**. This is usually used to label flammable liquids, emergency switches as well as fire issues.



**ORANGE** means (and is used with the word) “warning”. The hazard is serious but not necessarily immediate. It warns the reader to be careful because there is the potential for serious injury or even death. Examples would include pinch points, machinery and moving parts.



**YELLOW** is used to identify a hazard that might result in injury that, while not necessarily life threatening, could still be somewhat serious. It is used most often with “Caution”. Slips, trips and falls would fall in this category as would certain storage cabinets (corrosives, flammables, etc...).



**GREEN** denotes safety and is usually used to identify safety material like MSDS sheets. There is no immediate danger present. It is usually associated with the word “Safety” or “Think”.



**BLUE** is most often used with “NOTICE” to identify safety regulations and procedures.



OSHA CFR 1910.144 mandates only the use of Red and Yellow:

### Red

Red shall be the basic color for the identification of:

- **Fire protection equipment and apparatus.**
- **Danger.** Safety cans or other portable containers of flammable liquids having a flash point at or below 80° F, table containers of flammable liquids (open cup tester), excluding shipping containers, shall be painted red with some additional clearly visible identification either in the form of a yellow band around the can or the name of the contents conspicuously stenciled or painted on the can in yellow. Red lights shall be provided at barricades and at temporary obstructions. Danger signs shall be painted red.
- **Stop.** Emergency stop bars on hazardous machines such as rubber mills, wire blocks, flat work ironers, etc., shall be red. Stop buttons or electrical switches which letters or other markings appear, used for emergency stopping of machinery shall be red.

## Yellow


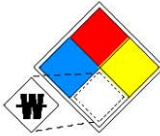
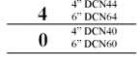
Yellow shall be the basic color for designating caution and for marking physical hazards such as: Striking against, stumbling, falling, tripping, and "caught in between."

Using the other colors, while not mandated, is a good idea to conform to what most people are used to.

## Shapes

In addition to colors, shapes are associated with certain types of signs.

**Triangles and Diamonds** are used for hazardous materials and NFPA labels.

	4" DCL154 6" DCL156		
<b>W</b>	4" DCL104 6" DCL106		
<b>OXY</b>	4" DCL114 6" DCL116		
<b>ACID</b>	4" DCL124 6" DCL126		
<b>ALK</b>	4" DCL134 6" DCL136		
<b>COR</b>	4" DCL144 6" DCL146		
<b>1</b>	4" DCN41 6" DCN61		
<b>2</b>	4" DCN42 6" DCN62		
<b>3</b>	4" DCN43 6" DCN63		
<b>4</b>	4" DCN44 6" DCN64		
	<b>0</b>	4" DCN40 6" DCN60	

**Circles** are used for mandatory actions that workers are called to perform such as donning a certain type of Personal Protective Equipment or extinguishing cigarettes.



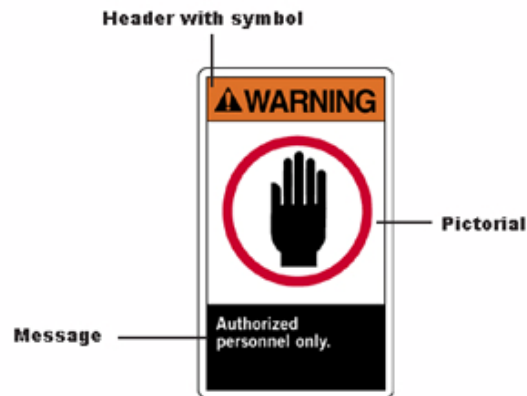
**Squares and Rectangles** are used most generically for most other types of information.




## Bilingual Signs


Because more and more workers do not necessarily speak or read English, it is usually a good idea to make sure that your signs are bilingual in order to make sure that your Spanish speaking employees are safe as well.


## ANSI Z535.2-1998 vs. ANSI Z535.2-2002




The new ANSI Z535.2-2002 specifies the new standard for safety signs. ANSI Z535.2-2002 signs are made up of three distinct panels:

1. **The header panel** which contains the DANGER, WARNING or CAUTION along with the graphic symbol .

- a.  This header denotes a hazard that is serious enough to potentially cause serious injury or death.

- b.  This header denotes a hazard that is similar to the DANGER above but with a lesser degree of risk.

- c.  This header denotes a hazard that has the potential for moderate injury.

**CAUTION**

- d. This header (notice the absence of the safety alert triangle) is to be used to denote hazards that have the potential for damage to property as opposed to personal injury.

**NOTICE**

- e. This header denotes a statement of company policy. It is NEVER to be used if there is a hazard that could result in personal injury.

2. **The pictorial panel** that describes the type of hazard, the possible consequence of the hazard or the action to be taken to avoid the hazard. There are two different classifications of pictorials:

- a. **Hazard Alerting Pictorials** - a picture that shows what the hazard is and what the consequences are if the worker fails to follow the instructions.



- b. **Hazard Avoidance Pictorials** – Pictures that illustrate the action to be taken to avoid the hazard.



3. **The message panel.** ANSI recommends a combination of UPPERCASE and lowercase sans serif text.

- a. Uppercase text should be used to call to action, a consequence statement, emergency information or to describe the hazard that is present.
- b. Lowercase text should be used to give instructions about how to avoid the hazard, to outline the consequences more in detail, to explain the action statement or outline safety measures to be taken.

**Visibility**

ANSI Z535-2002 specifies a ratio of 25 feet per inch of text for **favorable reading conditions** (the air is clear of smoke, debris, dust, lighting is good, etc...) and 12 feet per inch of text for **unfavorable reading conditions** (visibility is somewhat hampered).

As an example... if visibility is limited and a sign needs to be read from 50 feet away, the letters on the sign would need to be five inches tall. If visibility is good, the letter would need to be two inches tall.

## **Putting together a complete safety signage program**

1. Signage needs to cover all of your companies' property. This means that you need to make sure that all hazards are labeled correctly, not only in the production facilities or warehouse, but also on all the grounds outside the building as well as offices, hallways and lunchrooms.
2. The more eyes the better. Consider asking your local safety supplier to come out and do a walk through with you. At the very least, have several people identify all the possible hazards. You alone will invariably miss things. Ask employees where the hazards are and make sure that they are adequately labeled for protection.
3. Don't just look, listen, smell and feel as well. Are there hot pipes or exhausts? Are there areas that are loud and require hearing protection? Are fumes present? All of these are potential hazards and should be properly identified.
4. Standardize and communicate what that standard is. If the same color is used to identify the same hazard throughout the facility, if a certain symbol is used over and over again, then employees, once they have been taught, will be able to identify hazards quickly and accurately.

## **Standards and where to get more information:**

OSHA 29 CFR 1910 (<http://www.osha.gov/> )

ANSI Z535 (<http://www.ansi.org/>)