

ANSI Z535.5-2011 (R2017)

American National
Standard for Safety Tags
and Barricade Tapes
(for Temporary Hazards)





ANSI Z535.5-2011(R2017)
Reaffirmation of
ANSI Z535.5-2011

*American National Standard for
Safety Tags and Barricade Tapes
(for Temporary Hazards)*

Secretariat:

National Electrical Manufacturers Association

Approved October 25, 2017

American National Standards Institute, Inc.

NOTICE AND DISCLAIMER

The information in this publication was considered technically sound by the consensus of persons engaged in the development and approval of the document at the time it was developed. Consensus does not necessarily mean that there is unanimous agreement among every person participating in the development of this document.

ANSI standards and guideline publications, of which the document contained herein is one, are developed through a voluntary consensus standards development process. This process brings together volunteers and/or seeks out the views of persons who have an interest in the topic covered by this publication. While NEMA administers the process to promote fairness in the development of consensus, it does not write the document, and it does not independently test, evaluate, or verify the accuracy or completeness of any information or the soundness of any judgments contained in its standards and guideline publications.

NEMA disclaims liability for any personal injury, property, or other damages of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication, use of, application, or reliance on this document. NEMA disclaims and makes no guaranty or warranty, expressed or implied, as to the accuracy or completeness of any information published herein, and disclaims and makes no warranty that the information in this document will fulfill any of your particular purposes or needs. NEMA does not undertake to guarantee the performance of any individual manufacturer or seller's products or services by virtue of this standard or guide.

In publishing and making this document available, NEMA is not undertaking to render professional or other services for or on behalf of any person or entity, nor is NEMA undertaking to perform any duty owed by any person or entity to someone else. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances. Information and other standards on the topic covered by this publication may be available from other sources, which the user may wish to consult for additional views or information not covered by this publication.

NEMA has no power, nor does it undertake to police or enforce compliance with the contents of this document. NEMA does not certify, test, or inspect products, designs, or installations for safety or health purposes. Any certification or other statement of compliance with any health- or safety-related information in this document shall not be attributable to NEMA and is solely the responsibility of the certifier or maker of the statement.

AMERICAN NATIONAL STANDARD

Approval of an American National Standard requires verification by The American National Standards Institute, Inc. (ANSI) that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer. An American National Standard implies a consensus of those substantially concerned with its scope and provisions. Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly, and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered and that a concerted effort be made toward their resolution.

The existence of an American National Standard does not in any respect preclude anyone, whether s/he has approved the standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards. It is intended as a guide to aid the manufacturer, the consumer, and the general public.

The American National Standards Institute, Inc., does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute, Inc. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on this title page.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute, Inc. require that action be taken periodically to reaffirm, revise, or withdraw this standard. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute, Inc.

Published by

**National Electrical Manufacturers Association
1300 North 17th Street, Suite 900
Rosslyn, VA 22209**

© 2017 National Electrical Manufacturers Association

All rights reserved including translation into other languages, reserved under the Universal Copyright Convention, the Berne Convention for the Protection of Literary and Artistic Works, and the International and Pan American Copyright Conventions.

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without the prior written permission of the publisher.

Printed in the United States of America

<This page intentionally left blank.>

CONTENTS

Foreword	vii
1 Introduction	1
2 Scope and Purpose	1
2.1 Scope	1
2.2 Purpose	1
2.2.1 Existing American National Standards	1
3 Definitions	1
4 Safety tag and barricade tape classifications	3
4.1 DANGER	3
4.2 WARNING	3
4.3 CAUTION	3
4.4 NOTICE	3
4.5 SAFETY INSTRUCTIONS or similar words	3
5 Tag and Tape Format and Color Criteria	4
5.1 Standard Colors	4
5.2 Safety Alert Symbol	4
5.2.1 Color	4
5.2.2 Format	4
5.3 Signal Word Panels	4
5.3.1 DANGER tags and tapes	4
5.3.2 WARNING tags and tapes	4
5.3.3 CAUTION tags and tapes	5
5.3.4 NOTICE tags and tapes	5
5.3.5 SAFETY INSTRUCTIONS (or similar words) tags or panels	5
5.4 Tag and Tape Criteria	5
5.4.1 All Safety Tags and Barricade Tapes	5

5.4.2	A Single Tag or Length of Tape	6
5.4.3	Message Panel Color	6
5.4.4	Formats for Tag Borders	6
5.5	Tag and Tape Design/Layout	6
5.5.1	Safety Tag Layout	6
5.5.2	Barricade Tape Layout	7
6	Tag Location, Attachment Methods, Life Expectancy, and Authorization	8
6.1	Tag Location	8
6.2	Barricade Tape Placement	8
6.2.1	Placed to Alert and Inform the Viewer	8
6.2.2	Placed to be Legible, Non-Distracting, and Non-Hazardous	8
6.3	Safety Tag Attachment Methods	8
6.4	Life Expectancy	8
6.5	Safety Tag Authorization	8
7	Letter Style, Viewing Distance, Tag Size, and Shape	8
7.1	Letter Style	8
7.1.1	Signal Words	8
7.1.2	Message Panel Lettering	8
7.1.3	Examples of Acceptable Type Faces	9
7.1.4	Handwritten Tags	9
7.2	Letter Size	9
7.2.1	Letter Height for Barricade Tape	9
7.2.2	Viewing Distance / Letter Height for Tags	9
7.3	Tag Size and Shape	9
8	Safety Symbols	9
8.1	Conveyed Message	9
8.2	Use with and without Corresponding Word Messages	9
9	References	10

9.1 Normative References..... 10
9.2 Informative References 10

Figures

1 The Safety Alert Symbol 3
2 Format for the DANGER Signal Word Panel 4
3 Format for the WARNING Signal Word Panel 4
4 Format for the Personal Injury CAUTION Signal Word Panel 5
5 Format for the NOTICE Signal Word Panel 5
6 Format for the SAFETY INSTRUCTIONS or Similar Words Signal Word Panel..... 5
7 Formats for Tag Borders 6
8 Safety Tag Illustration 7
9 Barricade Tape Illustration 7
A1 Examples of Correct Signal Word and Safety Alert Symbol Placement 11
A2 Examples of Incorrect Signal Word and Safety Alert Symbol Placement..... 11
A3 Word Message with Hazard Description First..... 12
A4 Word Message with Hazard Avoidance Message First 12
A5 Headline Style Message 13
A6 Non-headline Style Message 13
A7 Examples of Action Statements 13
A8 Examples of Concise Hazard Description Statements 13
A9 Examples of Consequence Statements 13
A10 Examples of Correct and Incorrect Type Spacing 14
A11 Example of Personalized Lock-Out Tag with Photo 16
A12 Example of Signature Block..... 16
A13 Example of Signature Block with Tag Line Completed..... 16
A14 Example of Step-by-Step Procedure 16
A15 Multi-Lingual Tag Layouts 17
A16 Multi-Lingual Tape Layouts 17
A17 Examples of Tag Backs 17
C1 Model of the Possible Results of a Hazardous Situation 20
C2 Signal Word Selection Process..... 23

Tables

A1 Examples of Word Message Letter Heights and Minimum Safe Viewing Distances..... 15

Annexes

A	Principles and Guidelines for the Design of Safety Tags and Barricade Tapes.....	11
B	Previous Formats for Signal Word Panels.....	18
C	Risk Estimation and Signal Word Selection.....	19
D	Informative References.....	24

Foreword

In 1979, the ANSI Z53 Committee on Safety Colors was combined with the ANSI Z35 Committee on Safety Signs to form the ANSI Z535 Committee on Safety Signs and Colors. The Z535 Committee has the following scope:

To develop standards for the design, application, and use of signs, colors, and symbols intended to identify and warn against specific hazards and for other accident prevention purposes.

While the basic mission and fundamental purpose of the ANSI Z535 Committee is to develop, refine, and promote a single, uniform graphic system used for communicating safety and accident prevention information, the Z535 Committee recognizes that this information can also be effectively communicated using other graphic systems.

The Z535 Committees created subcommittees to update the Z53 and Z35 standards and to write new standards. To date, the following six standards comprise the ANSI Z535 series:

- ANSI Z535.1 *Safety Colors* [ANSI Z53.1-1979 was updated and combined into this standard in 1991]
- ANSI Z535.2 *Environmental and Facility Safety Signs* [ANSI Z35.1-1972 and Z35.4-1972 were updated and combined into this standard in 1991]
- ANSI Z535.3 *Criteria for Safety Symbols* [new in 1991]
- ANSI Z535.4 *Product Safety Signs and Labels* [new in 1991]
- ANSI Z535.5 *Safety Tags and Barricade Tapes (for Temporary Hazards)* [ANSI Z35.2-1974 was updated and combined into this standard in 1991]
- ANSI Z535.6 *Product Safety Information in Product Manuals, Instructions, and Other Collateral Materials* [new in 2006]

Together, these six standards contain the information needed to specify formats, colors, and symbols for safety signs used in environmental and facility applications, product and product literature applications, and temporary safety tag and barricade tape applications.

Published separately is the ANSI Z535 Safety Color Chart. This chart gives the user a sample of each of the safety colors: red, orange, yellow, green, blue, purple, brown, grey, white, and black. It also describes each color's ink formulation and closest PANTONE® color.

This ANSI Z535.5 standard was prepared by the Z535.5 Subcommittee on Safety Tags and Barricade Tapes (for Temporary Hazards). The foreword and all of the annexes are considered to be informative; the body is considered normative. In the vocabulary of writing standards, the word "informative" is meant to convey that the content presented is for informational purposes only and is not considered to be mandatory in nature. The word "normative" is meant to convey that the content is considered to be mandatory or prescriptive.

The first edition of this standard was made available to the public in 1992. Recognizing the differences between environmental and on-product safety signs, the standard focused on how to carry forward the requirements for hazard alerting stated in both the ANSI Z535.2 Standard and the ANSI Z535.4 Standard through the media of safety tags. In the 1998 and 2002 revisions notable changes included the format of signal word panels. The format of these panels is now uniform across the ANSI Z535.2, ANSI Z535.4, and ANSI Z535.5 Standards and most closely resembles the format originally used in ANSI Z535.4. In 2002, requirements and guidelines for the design of safety barricade tapes were introduced.

In the 2007 revision, Annex C was added to provide assistance in selecting a signal word, and Annex D was created to separate the normative references from the informative references.

The 2011 edition of this standard was revised to better harmonize with the ANSI Z535.2, Z535.4 and Z535.6 standards. A new type of safety tag, the SAFETY INSTRUCTIONS tag, was added to the standard, in addition to the existing types of signs, hazard alerting tags and barricade tapes and safety

notice tags and barricade tapes, which were more clearly defined and named in this edition. In tandem with these changes, the definitions for “accident,” “harm,” and “incident” were refined to more clearly delineate a separation between physical injury and other safety-related issues (e.g., property damage).

The 2011 edition of this standard was reaffirmed in 2017.

Proposals for improvement of this standard are welcome. Information concerning submittal of proposals to the ANSI Z535 Committee for consideration can be found at the back of this standard.

This standard was processed and approved for submittal to ANSI by the Accredited Standards Committee Z535 on Safety Signs and Colors. Committee approval of this standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the Z535 Committee had the following members:

Geoffrey Peckham, Chair

J. Paul Frantz, Vice Chair

Paul Orr, Secretary

Organization Represented:

Name of Representative:

American Society of Safety Engineers

J. Paul Frantz
Thomas F. Bresnahan (Alt.)
Timothy Rhoades (Alt.)

American Welding Society

August F. Manz

Applied Materials

Edward Karl
Edwin Palmero (Alt.)

Applied Safety and Ergonomics

Steve Hall
Judith J. Isaacson (Alt.)
Stephen Young (Alt.)

Association for Manufacturing Technology

David Felinski

Association of Equipment Manufacturers

Valerie Lynch

Bell Product Safety

Gary Bell

Browning Arms Company

Larry D. Nelson
Genta Shalon (Alt.)

Caterpillar, Inc.

Charles Crowell
Mark Steffen (Alt.)

Clarion Safety Systems, LLC

Geoffrey Peckham

Dorris and Associates International, LLC

Nathan T. Dorris
Alan Dorris (Alt.)
Eric Boelhouwer (Alt.)

Eagle Crusher Co.

Ryan Parsell

Edison Electric Institute	David Young
Human Factors & Ergonomics Society	Michael Kalsher Harvey Cohen (Alt.)
Human Factors & Safety Analytics, Inc.	B. Jay Martin
Institute of Electrical & Electronics Engineers	Sue Vogel
International Safety Equipment Association	Cristine Fargo
International Staple, Nail, and Tool Association	Rick Allen Jeffrey Makino (Alt.)
Law Office of Mathew Kunding	Mathew Kunding
Marhefka & Associates	Russell E. Marhefka
National Association of Graphic Product Identification Manufacturers	Russ Butchko Donna Ehrmann (Alt.)
National Marker Company	Michael Black Alice Campbell (Alt.) Marianne Pepin (Alt.)
National Spray Equipment Manufacturers Association	Angela Redlund-Spieker
National Electrical Manufacturers Association	Bill Pratt David Werba (Alt.)
Power Tool Institute	Brett Cohen Mark Hickok (Alt.) Charles M. Stockinger (Alt.)
Rockwell Automation	Steven Chybowski
Rural Utilities Service	Trung Hiu
Safety and Forensic Enterprises, LLC	Loren Mills
Scaffold Industry Association	Dave Merrifield
Snap-on Tools	Dan Eggert
System Safety Society	Robert J. Cunitz
Taylor Communications	Linda LeBlanc Jody Dombeck (Alt.)

Travelers Insurance Company

David Roy
Joe Bailey (Alt.)

Underwriters Laboratories

Richard Olesen

Whirlpool Corporation

Sondra McAndrew
Evelyn Fisher (Alt.)

World Kitchen, LLC

Celeste Levindoski

At the time it prepared this edition of ANSI Z535.5 for Z535 Committee vote, Subcommittee Z535.5 on Safety Tags and Barricade Tapes (for Temporary Hazards) had the following members:

Nathan T. Dorris, Chair

Paul Orr, Secretary

Lewis Barbe
Nathan T. Dorris
Eric Boelhouwer
Steve Hall

World Safety Organization
Dorris and Associates International, LLC
Dorris and Associates International, LLC
Applied Safety and Ergonomics

1 Introduction

This standard sets forth a system for presenting safety and accident prevention information through safety tags and barricade tapes. 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. Such an approach assists standard users with the efficient development of safety tags and barricade tapes, and assists safety tag and barricade tape viewers in recognizing signs as being related to safety.

This standard sets forth a hazard communication system that is designed to complement the ANSI Z535.2-2011(R2017), ANSI Z535.4-2011(R2017), and ANSI Z535.6-2011(R2017) standards. While these standards are similar in many respects, they each address different physical and visual requirements. As a result, the Accredited Standards Committee Z535 has recognized and affirmed the need for these separate standards.

2 Scope and Purpose

2.1 Scope

This standard sets forth requirements for the design, application, and use of safety tags and barricade tapes for temporary hazards. They shall be used only until the identified hazard is eliminated, or the hazardous operation is completed. For example, a safety tag would be appropriate for use during lock-out/tag-out procedures or on a damaged tool until it can be properly removed from the work area. Barricade tape would be suitable to mark an area affected by a chemical spill or an open and temporary trench.

Safety tags or barricade tapes shall not be used in place of a permanent sign or label intended for hazards in normal use, operation, or maintenance. However, if a permanent sign or label is presented in a tag configuration or a hang tag is used to supplement a permanent safety sign, the safety tag should comply with the provisions of ANSI Z535.2-2011(R2017) or ANSI Z535.4-2011(R2017).

While this standard addresses safety tags and barricade tapes for temporary hazards, other tags or tape types are not addressed by this standard. For example, underground tapes, permanent tapes, striped tapes, and non-skid tapes are not covered by this standard.

2.2 Purpose

The purpose of this standard is:

- a. to establish a uniform and consistent visual layout for safety tags and barricade tapes;
- b. to minimize the proliferation of designs for safety tags and barricade tapes; and
- c. to establish a national uniform system for safety tags and barricade tapes that communicate safety information.

2.2.1 Existing American National Standards

There are a number of existing American National Standards which are recognized for particular industries or specific uses. Compliance with these standards may be considered for the particular industry or use. It is not the intent of this ANSI Z535.5 standard to replace existing standards or regulations, which are uniquely applicable to a specific industry or use. It is the intent to encourage adoption of this standard in subsequent revisions of other standards and regulations.

3 Definitions