



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 2893.2-2020

**Graphical symbols - Safety colours and safety signs - Part 2:
Design principles for product safety labels**

Issued on: March 31, 2020

Implemented on: October 1, 2020

Issued by: SAMR; SAC

Table of Contents

Foreword	3
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
4 Use of safety colors	9
4.1 General requirements	9
4.2 Contrasting colors	9
4.3 Use of colors	10
5 Hazard severity panel	11
5.1 General requirements	11
5.2 Composition of hazard severity panel	11
6 Types and composition of product safety labels	11
6.1 General requirements	11
6.2 Separate safety labels	12
6.3 Safety signs with separate text area for supplementary safety information	13

1 Scope

This Part of GB/T 2893 specifies the design principles of product safety labels, including the use of safety colors, the composition of the hazard severity panel, the composition of different types of product safety labels, etc. In the Appendix, it provides the reference data, such as the guidelines for improving the identifiability of product safety labels AND the design example of product safety labels.

The product safety labels, which are specified in this Part, apply to all products, in which safety-related problems may occur. However, the product safety labels, which are specified in this Part, do not apply to:

- Chemicals;
- Transport of dangerous substances and preparations;
- Industries, that have been bound by relevant regulations AND whose content is different from certain terms of this document.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this document. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 2893.1 Graphical symbols - Safety colors and safety signs - Part 1: Design principles for safety signs and safety markings (GB/T 2893.1-2013, ISO 3864-1:

2011, MOD)

Residual risk Risks that remain, after implementing protective measures.

[GB/T 20002.4-2015, Definition 3.8] 3.6 Signal word Words, which are used to draw attention to product safety labels and identify risk categories.

Note: Warning words include "Danger", "Warning", "Caution".

3.7 Product safety label Used on a product, a label that informs observers of a potential hazard or hazards AND describes the safety measures or actions required to avoid the hazard.

Note: Product safety labels are used to convey information on hazards, precautionary measures to avoid hazards AND/OR the consequences that will result when hazards cannot be avoided.

3.8 Hazard severity panel The area, which is used in a combination product safety label or multiple product safety label, to convey the risk category, which is associated with the hazard.

Note: The display area contains general warning signs, a warning, the corresponding background color (see Table 2).

3.9 Supplementary safety information panel The area of the product safety label, where the safety information symbol or safety information text serves as an additional instruction.

Note: The supplementary safety information is mainly used to introduce information, such as dangerous consequences or dangerous preventive measures.

3.10 Combination product safety label Product safety labels, which combine safety signs and/or supplementary safety information and/or hazard severity, on the same rectangular label.

Note: A combination product safety label conveys only one safety message.

3.11 Multiple product safety label A product safety label, which includes two or more safety signs on the same rectangular label, AND may also include supplementary safety information and/or hazard severity panel.

4 Use of safety colors

4.1 General requirements The use of safety colors, on product safety labels, serves the following basic purposes:

- a) Make the product safety label easy to notice, by using color to attract people's attention;
- b) Identify product safety labels AND assign safety meanings to product safety labels and their components.

Except for the orange safety color, the chromaticity properties and photometric properties of other safety colors shall comply with the provisions of GB/T 2893.4. The orange safety color is only used in the "warning" hazard severity panel. Table 1 specifies the chromaticity and photometric properties of the orange safety color. Refer to

Appendix B, for reference values of the orange safety color in the color system.

Table 1 -- Chromaticity coordinates and luminance factors when orange safety color is used for common materials

4.2 Contrasting colors The contrasting color shall comply with the provisions of GB/T 2893.1. The contrasting color of orange is black.

Coordinate Determine the corner chromaticity coordinates of the allowable colour range:
Standard illuminator D65, 2° field of view Luminance factor

5 Hazard severity panel

5.1 General requirements If it is necessary to indicate the severity level of the hazard, the hazard severity panel shall be added to the upper part of the combination product safety label or the multiple product safety label. As shown in Table 2, the hazard severity panel shall be rectangular in shape AND shall contain the following elements:

- a) General warning signs (see Figure A.5);
- b) Color;
- c) Warning words (the warning words are optional).

5.2 Composition of hazard severity panel A general warning sign shall be included on the hazard severity panel. When using warning words, the warning word is located on the right side of the general warning sign; it is displayed in the center of the hazard severity panel together with the general warning sign; the word height of the warning word shall not exceed the graphic height of the general warning sign. When no warning words are used, the general warning sign is displayed centered on the hazard severity panel (see Table 2).

Warning words should use isometric font and bold. When the product is exported outside

the country, the warning words should use the language of the corresponding country and region. Appendix C gives the standard expressions of warning words in different languages.

6 Types and composition of product safety labels

6.1 General requirements One or more safety signs shall be included in the product safety label. Product safety labels may be accompanied by one or more areas of supplementary safety information and a hazard severity panel. The supplementary safety information area shall consist of text or supplementary safety information symbols.

Product safety labels shall conform to one of the following seven types:

a) Separate safety signs;

Appendix A (Informative) Guidelines for improving the identifiability of product safety labels

A.1 Overview To enhance the comprehensibility of product safety labels, product manufacturers are encouraged, to include information in their product user documentation (e.g., operation manuals, instruction manuals, safety manuals, maintenance manuals, etc.), that helps people understand product safety labels. In the product accompanying documents, in addition to giving the product safety label, giving the contents of A.3 ~ A.5 will help to achieve the purpose of publicizing and explaining to product users, so as to promote people's recognition of the definition of the product safety label, which is specified in this Part.

A.2 Graphical symbols Product safety labels always contain graphic symbols in the geometric shape of their safety signs (see A.3). The design principles of graphic symbols for safety signs are given in GB/T 2893.3. If the product safety label has a supplementary safety information symbol, the supplementary safety information symbol will be displayed in a rectangular area. The safety signs and supplementary safety information symbols, which are used on the product safety label, shall be explained in the user documentation, which can enable users to better understand the meaning of the graphic symbols, so that they can quickly identify the safety signs and supplementary safety information symbols in the future. Supplementary information may also be added to other documentation, which is provided with the product, to further clarify the safety signs and supplementary safety information symbols.

A.3 Geometry

Figure A.1, Figure A.2, Figure A.3 and their text descriptions should be included in the user documentation.

Appendix D (Informative) Example for design of product safety label