

**SINGAPORE STANDARD**

# **Graphical symbols – Safety colours and safety signs**

– Part 2 : Design principles for product safety labels

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**Graphical symbols – Safety colours and safety signs**

– Part 2 : Design principles for product safety labels

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This Singapore Standard was approved by the General Engineering and Safety Standards Committee on behalf of the Standards Council of Singapore on 9 October 2008.

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The General Engineering and Safety Standards Committee appointed by the Standards Council consists of the following members:

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*As amended,  
Mar 13*

## **National Foreword**

This Singapore Standard was prepared by the Technical Committee on Workplace Safety and Health under the direction of the General Engineering and Safety Standards Committee.

The review of the SS 508 series of standards (Parts 1 to 4) completed in 2013 resulted in the following:

- Confirmation with amendments of Part 2.
- Revision of Parts 1, 3 and 4: these parts have been renumbered, rearranged and retitled to be aligned with the ISO 3864 Parts 1, 3 and 4 as well as ISO 7010. The part on 'Safety signs used in workplaces and public areas' has been retitled to 'Registered safety signs'. A new part on colorimetric and photometric properties of safety sign materials was also added to the series.

The revised SS 508 now consists of the following five parts, under the general title 'Graphical symbols — Safety colours and safety signs':

- Part 1: Design principles for safety signs and safety markings (Identical adoption of ISO 3864-1:2011)
- Part 2: Design principles for product safety labels (Identical adoption of ISO 3864-2:2004 and ISO 3864-2:2004/Amd 1:2011)
- Part 3: Design principles for graphical symbols for use in safety signs (Identical adoption of ISO 3864-3:2012)
- Part 4: Colorimetric and photometric properties of safety sign materials (Identical adoption of ISO 3864-4:2011)
- Part 5: Registered safety signs (Identical adoption of ISO 7010:2011, ISO 7010:2011/Amd 1:2012, ISO 7010:2011/Amd 2:2012 and ISO 7010:2011/Amd 3:2012)

With this standard, there is harmonisation of all safety signs used in workplaces and public areas which will result in better understanding and communication of safety information.

This part of SS 508 is identical with ISO 3864-2 : 2004 – 'Graphical symbols – Safety colours and safety signs, Part 2: Design principles for product safety labels', published by the International Organization for Standardization. It is applicable to all locations where safety issues related to people need to be addressed. However, it is not applicable to the signalling used for guiding rail, road, river, maritime and air traffic and, generally speaking, to those sectors subject to a regulation which may differ.

*As amended,  
Dec 16*

Symbols, labels and safety signs for chemicals and dangerous goods can be found in the following documents:

- a) SS 586 Specification for hazard communication for hazardous chemicals and dangerous goods
  - Part 1: Transport and storage of dangerous goods
  - Part 2: Globally harmonized system of classification and labelling of chemicals – Singapore's adaptations
  - Part 3: Preparation of safety data sheets (SDS)

- b) The Globally Harmonised System of Classification and Labelling of Chemicals ([http://www.unece.org/trans/danger/publi/ghs/ghs\\_pubdet.html](http://www.unece.org/trans/danger/publi/ghs/ghs_pubdet.html))
- c) The UN Recommendations on the Transport Of Dangerous Goods Model Regulations ([http://www.unece.org/trans/danger/publi/unrec/rev19/19files\\_e.html](http://www.unece.org/trans/danger/publi/unrec/rev19/19files_e.html))

Attention is drawn to the following:

- 1. Where the words 'this part of ISO 3864' appear, they should be interpreted as 'this part of SS 508'.
- 2. The comma has been used throughout as a decimal marker in ISO 3864-2, whereas in Singapore Standards it is a practice to use a full-point on the baseline as the decimal marker.
- 3. The reference to International Standards shall be replaced by the following Singapore Standards:

International Standard	Corresponding Singapore Standard
ISO 3864-1	SS 508 : Part 1 : 2013
ISO 3864-3	SS 508 : Part 3 : 2013
ISO 3864-4	SS 508 : Part 4 : 2013
ISO 7010	SS 508 : Part 5 : 2013

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

**NOTE**

- 1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.*
- 2. *An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR.*
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## **Foreword**

*As amended,  
Mar 13*

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

Amendment 1 to ISO 3864-2:2004 was prepared by Technical Committee ISO/TC 145, *Graphical symbols*, Subcommittee SC 2, *Safety identification, signs, shapes, symbols and colours*.

## **Introduction**

There is a need to standardize a system of communicating safety information on products. This part of ISO 3864 provides layouts for product safety labels that can be used to convey safety information related to the installation, operation, use, maintenance and/or disposal of a product. Product safety labels are not to be used as safety signs on walls in workplaces and public buildings.

This part of ISO 3864 builds on the system of hazard communication set forth in ISO 3864-1. This part of ISO 3864 sets forth additional layouts for product safety labels that assist in communicating:

- a) the severity level of the hazard, and
- b) supplementary safety information in word or symbolic form.

To assist in the communication of safety information across language barriers, all of the product safety label layouts shown in this part of ISO 3864 incorporate safety signs. This part of ISO 3864 includes product safety label layouts that use only safety signs as well as layouts that use additional graphical symbols and text. Product safety labels that include text can be used when some of the necessary safety information cannot be communicated in symbolic form, when the combination of safety sign with text is judged to be more effective or when legal requirements in countries mandate the use of text to communicate safety information. Education is an essential part of any system that provides safety information. Because the amount of safety information necessary to operate or service a product safely may be more than can be conveyed in a product safety label, a product's accompanying documentation (e.g. product literature, installation manual, operation manual, service manual) may supplement the product's safety labels to provide the user with the additional information necessary for safety. A product's user documentation also offers a place to educate users on the meaning of the safety signs and supplementary safety information symbols shown on the product's safety labels (see Annex A).

When a product safety label is to be developed, the hazards associated with the product and their corresponding risks should be evaluated. Many factors are considered when deciding whether or not to warn, whether to warn on the product in the form of a product safety label and/or to warn in user documentation. Such factors include the severity of the risk, the probability of engaging the hazard, the degree to which the risk is obvious, and the type of person likely to possibly engage the hazard.

## Specification for graphical symbols — Safety colours and safety signs – Part 2 : Design principles for product safety labels

**IMPORTANT** — The colours represented in the electronic file of this part of ISO 3864 can be neither viewed on screen nor printed as true representations. Although the copies of this part of ISO 3864 printed by ISO have been produced to correspond (with an acceptable tolerance as judged by the naked eye) to the colour requirements, it is not intended that these printed copies be used for colour matching. Instead, refer to the colorimetric and photometric properties specified in 4.1 and ISO 3864-1. As guidelines, references from colour order systems are provided in Annex E for safety colour orange and in ISO 3864-1:2002, Annex A, for other safety colours.

### 1 Scope

This part of ISO 3864 establishes additional principles to ISO 3864-1 for the design of safety labels for products, i.e. any items manufactured and offered for sale in the normal course of commerce, including but not limited to consumer products and industrial equipment. The purpose of a product safety label is to alert persons to a specific hazard and to identify how the hazard can be avoided.

This part of ISO 3864 is applicable to all products in all industries where safety-related questions can be posed. However, it is not applicable to safety labels used:

- for chemicals;
- for the transport of dangerous substances and preparations;
- in those sectors subject to legal regulations which differ from certain provisions of this document.

The design principles incorporated in this part of ISO 3864 are intended to be used by all ISO Technical Committees and anyone designing product safety labels in the development of product safety label standards for their industries or services.

Statutory or regulatory requirements in some countries may differ from some requirements given in this part of ISO 3864. To facilitate international standardization of product safety labels, this part of ISO 3864 should be considered when revising regulations.

### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3864-1, *Graphical symbols, Safety colours and safety signs — Part 1: Design principles for safety signs in workplaces and public areas*

ISO 17724, *Graphical symbols — Vocabulary*