

SINGAPORE STANDARD

# **SS 508 : Part 2 : 2008**

**ISO 3864-2 : 2004**

(ICS 01.070; 01.080.10; 01.080.20)

SPECIFICATION FOR

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

---

*Part 2 : Design principles for product safety  
labels*

Published by  
SPRING Singapore  
2 Bukit Merah Central  
Singapore 159835  
SPRING Singapore Website: [www.spring.gov.sg](http://www.spring.gov.sg)  
Standards Website: [www.standards.org.sg](http://www.standards.org.sg)

**SPRING**  
singapore  
Enabling Enterprise

SINGAPORE STANDARD

# SS 508 : Part 2 : 2008

ISO 3864-2 : 2004

(ICS 01.070; 01.080.10; 01.080.20)

SPECIFICATION FOR

## Graphical symbols – Safety colours and safety signs

---

*Part 2 : Design principles for product safety labels*

*All rights reserved. Unless otherwise specified, no part of this Singapore Standard may be reproduced or utilised in any form or by any means, electronic or mechanical, including photocopying and microfilming, without permission in writing from SPRING Singapore at the address below:*

Head  
Standardisation Department  
SPRING Singapore  
2 Bukit Merah Central  
Singapore 159835  
Telephone: 62786666    Telefax: 62786667  
Email: [stn@spring.gov.sg](mailto:stn@spring.gov.sg)

ISBN 981-4154-84-9

## Contents

	<b>Page</b>
National Foreword _____	6
Foreword _____	9
Introduction _____	10

## CLAUSES

1	Scope _____	11
2	Normative references _____	11
3	Terms and definitions _____	12
4	Purpose of safety colours _____	14
4.1	General _____	14
4.2	Contrast colours _____	14
4.3	Use of colour _____	14
5	Hazard severity panels _____	15
5.1	General _____	15
5.2	Layout of hazard severity panels _____	15
5.3	Signal word options _____	15
6	Type and layout of product safety labels _____	16
6.1	General _____	16
6.2	Single safety sign _____	16
6.3	Safety sign used with a separated supplementary safety information text panel _____	17
6.4	Safety sign used with a separated supplementary safety information text panel which includes a hazard severity panel _____	17
6.5	Combination product safety label not incorporating a hazard severity panel _____	17
6.6	Combination product safety label incorporating a hazard severity panel _____	18
6.7	Multiple product safety label not incorporating a hazard severity panel _____	19
6.8	Multiple product safety label incorporating a hazard severity panel _____	20

## ANNEXES

A (informative)	Guidelines for increasing the recognition of product safety label components ____	21
B (informative)	Translation of signal words _____	23
C (informative)	Examples of product safety labels _____	24
D (informative)	Product safety label development considerations _____	28
E (informative)	References from colour order systems for safety colour orange _____	31
	Bibliography _____	32

## **National Foreword**

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

SS 508, which comes in four parts, replaces SS 217 : 1997 – ‘Industrial safety signs’ and SS 364 : 1993 – ‘Fire safety signs’.

The four parts under the general title ‘Specification for graphical symbols – Safety colours and safety signs’, to be read in conjunction, are as follows:

Part 1 : Design principles for safety signs in workplaces and public areas

Part 2 : Design principles for product safety labels

Part 3 : Safety signs used in workplaces and public areas.

Part 4 : Design principles for graphical symbols for use in safety signs

With SS 508, 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 – ‘Specification for graphical symbols – Safety colours and safety signs – Design principles for product safety labels’, published by the International Organisation for Standardisation. It is applicable to workplaces and all locations and all sectors where safety-related questions may be posed. However, it is not applicable to the signalling used for guiding rail, road, river, maritime and air traffic and, generally, to those sectors subject to a regulation which may differ. Additional symbols for labels for chemicals and dangerous goods may be found in The Globally Harmonised System of Classification and Labelling of Chemicals (<http://www.unece.org/trans/danger/publi/ghs/officialtext.html>), the UN Recommendations on the Transport Of Dangerous Goods Model Regulations ([http://www.unece.org/trans/danger/publi/unrec/rev13/13files\\_e.html](http://www.unece.org/trans/danger/publi/unrec/rev13/13files_e.html)) and Singapore regulations.

In preparing this standard, reference is also made to BS 5499-5 : 2002 – ‘Graphical symbols and signs – Safety signs, including fire safety signs – Part 5 : Signs with specific safety meanings’.

Acknowledgement is made for the use of information from the above references.

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 : 2002	SS 508 : Part 1 : 2004 – Specification for graphical symbols – Safety colours and safety signs – Design principles for safety signs in workplaces and public areas
ISO 3864-2 : 2004	SS 508 : Part 2 : 2008 – Specification for graphical symbols – Safety colours and safety signs – Design principles for product safety labels

ISO 7010 : 2003                      SS 508 : Part 3 : 2004 – Specification for graphical symbols  
– Safety colours and safety signs – Safety signs used in  
workplaces and public areas

ISO 3864-3 : 2006                    SS 508 : Part 4 : 2008 – Specification for graphical symbols  
– Safety colours and safety signs – Design principles for  
graphical symbols for use in safety signs

4. Additional translation of signal words is incorporated in Annex B and it does not alter the provisions of the International Standard. These additions are highlighted by a line in the left margin.

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

**NOTE**

1. *Singapore Standards are subject to periodic review to keep abreast of technological changes and new technical developments. The changes in Singapore Standards are documented through the issue of either amendments or revisions.*
2. *Compliance with a Singapore Standard does not exempt users from legal obligations.*

**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2004 All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.ch](mailto:copyright@iso.ch)  
Web [www.iso.ch](http://www.iso.ch)  
Printed in Switzerland

## Foreword

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.

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

ISO 3864 consists of the following parts, under the general title *Graphical symbols — Safety colours and safety signs*:

- *Part 1: Design principles for safety signs in workplaces and public areas*
- *Part 2: Design principles for product safety labels*
- *Part 3: Design criteria for graphical symbols used in safety signs*

## **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*