

SS 586-2:2022
(ICS 13.300)

SINGAPORE STANDARD

**Specification for hazard communication for
hazardous chemicals and dangerous goods**

– Part 2: Globally harmonised system of classification and
labelling of chemicals – Singapore’s adaptations

SS 586-2:2022

(ICS 13.300)

SINGAPORE STANDARD

**Specification for hazard communication for
hazardous chemicals and dangerous goods**

– Part 2: Globally harmonised system of classification and labelling of
chemicals – Singapore’s adaptations

Published by Enterprise Singapore

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 Enterprise Singapore. Request for permission can be sent to: standards@enterprisesg.gov.sg.

© Enterprise Singapore 2022

ISBN 978-981-5073-93-5

Contents

	Page
Foreword _____	3
1 Scope _____	5
2 Normative references _____	5
3 Terms and definitions _____	5
4 GHS classification _____	7
5 GHS label content _____	14
6 Labelling requirements _____	17
7 Updating of SDSs and label information _____	20
8 Hazard communication for chemicals stored in workplace _____	20
9 Hazard communication programme _____	21
 Annexes	
A Use of SDSs and GHS labels (informative) _____	23
B Examples of labelling for chemicals supplied in small containers/packages (informative) _____	28
 Tables	
1 Physical hazard building blocks adoption _____	8
2 Health hazard building blocks adoption _____	9
3 Environmental hazard building blocks adoption _____	9
4 Classification criteria/method for mixtures _____	10
5 Generic cut-off values/relevant ingredients _____	11
6 Classification of mixtures containing respiratory or skin sensitisation _____	12
7 Classification of mixtures containing carcinogens _____	12
8 Classification of mixtures containing reproductive toxicants _____	13
9 Classification of mixtures containing specific target organ toxicants (single exposure) _____	13
10 Classification of mixtures containing specific target organ toxicants (repeated exposure) _____	14
11 GHS pictograms _____	15
12 Dimensions of a GHS full label _____	18
 Figures	
1 Examples of in process sample labels _____	19
A.1 Use of SDSs in the various components of a management of a hazardous chemicals programme _____	23
B.1 Illustration of labelling for chemicals supplied in small containers/packages _____	28
B.2 Illustration of actual labelling for chemicals supplied in small containers _____	30
Bibliography _____	31

Foreword

This Singapore Standard was prepared by the Working Group on Review of SS 586 set up by the Technical Committee on Chemicals and Processes under the purview of the Chemical Standards Committee.

This standard is a revision of SS 586-2:2014. It includes a new physical hazard class for desensitised explosives. The labelling and training requirements have also been revised. A new Annex B has been added to provide examples on labelling for chemicals supplied in small containers.

SS 586, "Specification for hazard communication for hazardous chemicals and dangerous goods" consists of the following three parts which are complementary to one another:

- Part 1: Transport and storage of dangerous goods;
- Part 2: Globally harmonised system of classification and labelling of chemicals – Singapore's adaptations; and
- Part 3: Preparation of Safety Data Sheets (SDSs).

SS 586 Part 1 sets out provisions on the classification of dangerous goods by the types of hazards they present. It also provides information on standard hazard communication dangerous goods labels. This part applies to the storage and transportation of dangerous goods, in bulk or packages, by road which includes carriages in bulk, tank-vehicles, vehicles with demountable tanks.

SS 586 Parts 2 and 3 set out provisions for the implementation of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Preparation of Safety Data Sheets (SDSs). GHS is an international system for the classification of chemicals by the types of hazards they present. It provides information on standard hazard communication elements including labels and SDSs.

The GHS helps to ensure that information on physical, health and environmental hazards from chemicals is made available, in order to enhance the protection of human health and the environment during the handling, transport, and use of these chemicals. The GHS also provides for the global harmonisation of rules and regulations on the classification, labelling and SDSs of chemicals.

It is presupposed that in the course of their work, users will comply with all relevant regulatory and statutory requirements. Some examples of relevant regulations and acts are listed in the Bibliography. The Singapore Standards Council and Enterprise Singapore will not be responsible for identifying all of such legal obligations.

For cases in which UN GHS is mentioned in this document, it is to be read as "UN GHS, Seventh revised edition".

In Singapore, the SDS and labels are submitted in English, which is the official language.

In preparing this standard, reference was made to the following publications:

1. Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Seventh revised edition
2. Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Eighth revised edition

Annex B is developed with figures reproduced from "Globally Harmonised System of Classification and Labelling of Chemicals (GHS)", Seventh revised edition by United Nations, New York and Geneva, © 2017 United Nations. Reprinted with the permission of the United Nations.

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

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. Where SSs are deemed to be stable, i.e., no foreseeable changes in them, they will be classified as "mature standards". Mature standards will not be subject to further review unless there are requests to review such standards.*
- 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 and the Singapore Standards Council 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. Although care has been taken to draft this standard, users are also advised to ensure that they apply the information after due diligence.*
- 3. Compliance with a SS or TR does not exempt users from any legal obligations.*

Specification for hazard communication for hazardous chemicals and dangerous goods – Part 2: Globally harmonised system of classification and labelling of chemicals – Singapore’s adaptations

1 Scope

This Singapore Standard adopts the Globally Harmonised System of Classification and Labelling of Chemicals (GHS), which provides an international system for the classification of chemicals by the type of hazard that they present. It also specifies standard hazard communication elements including labels and safety data sheets.

Pharmaceuticals, food additives, cosmetics, and pesticide residues in food are not covered by the GHS in terms of labeling at the point of intentional intake. However, these types of chemicals are covered where workers can be exposed at work, and if there is potential exposure during the transportation of chemicals.

The GHS is adapted by Singapore for the classification and labelling of chemicals in Singapore and for their use in international trade.

2 Normative references

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

- | | |
|----------|---|
| SS 508-3 | Graphical symbols – Safety colours and safety signs – Design principles for graphical symbols for use in safety signs |
| SS 586-1 | Specification for hazard communication for hazardous chemicals and dangerous goods – Part 1: Transport and storage of dangerous goods |
| SS 603 | Code of practice for hazardous waste management |

Globally Harmonised System of Classification and Labelling of Chemicals (GHS), by United Nations, Seventh revised edition